

#### TECHNICAL MEMORANDUM

DATE: March 7, 2022

TO: Ms. Piper Peterson

CC: Mr. Ted Yackulic, EPA Region 10

Ms. Rebecca Lawson, Washington State Department of Ecology

Mr. Ken Lederman, McCullough Hill Leary, PS Mr. Matt Gladney, Bridge Point Tacoma LLC

FROM: Mr. Ramsey Mauldin, Senior Environmental Scientist

Mr. Thom Morin, LG, Principal Geologist / PNW Area Unit Leader

Off-Property Trichloroethene in Groundwater RE:

South Tacoma Field Superfund Site

South 56th Street and South Burlington Way

Tacoma, Washington

TRC Project Number: 422756.0005

THOMAS C. MORIN

TRC Environmental Corporation (TRC) is pleased to submit this Technical Memorandum on behalf of Bridge Point Tacoma LLC (Bridge). Bridge is the current owner of a 150-acre portion of the former South Tacoma Field (STF) Superfund Site in Tacoma, Washington (STF Site). The location of the STF Site is indicated on Figure 1. Figure 2 presents the general boundaries of the STF Site and of the portion of the STF Site now owned by Bridge.

During pre-purchase due diligence by Bridge, it was noted in a Phase I Environmental Site Assessment (ESA) that the Bruce Titus Nissan Dealers (Cleanup Site No. 3481, Facility Site ID 41363269; Titus Site) is located east of the STF Site. Available information indicated that trichloroethene (TCE) had been identified in groundwater at the Titus Site at elevated concentrations. The Washington State Department of Ecology (Ecology) issued a No Further Action (NFA) determination for the Titus Site on September 25, 2002, even though no remedial actions were performed on the Titus Site. A copy of Ecology's 2002 NFA Letter is included in Attachment A.

The NFA determination was contingent upon the filing of a Restrictive Covenant associated with groundwater at the Titus Site. This Restrictive Covenant, filed with the Pierce County's auditor office on December 26, 2002, prohibits the taking or release of groundwater from the Titus Site or any other action that may result in exposure to the known TCE impacts in groundwater. The Restrictive Covenant also states that the TCE impacts to groundwater are the result of migration from one or more off-property sources and not from the Titus Site, but does not provide the technical basis for this determination.

Ecology's 2002 NFA determination references an anticipated "Comfort Letter" to be generated by the U.S. Environmental Protection Agency (EPA) that addresses groundwater contamination associated with the Titus Site. Mr. Michael Gearhart of EPA Region 10 provided a Comfort Letter dated January 28, 2003, stating that it is likely that groundwater contamination at the Titus Site migrated from the STF Site. A copy of this letter is included in Attachment B.

No sampling data were presented that actually documented, identified, or characterized off-property sources of impact to the Titus Site or that fully characterized the likely sources of TCE impacts located on the Titus Site. The Comfort Letter was provided despite the absence of any supporting empirical data for the claim that the source of TCE impacts is the STF Site. Subsequent periodic reviews of the NFA determination continue to reference the STF Site as the source of groundwater contamination to the Titus Site. Copies of the Titus Site Periodic Review Reports are included in Attachment C.

As presented herein, the available data do not support a conclusion that the STF Site is the source of groundwater impacts to the Titus Site. While Bridge has no interest in invalidating the NFA determination for the Titus Site, Bridge has a strong interest in correcting the record and confirming that the STF Site is not a source of TCE contamination.

This Technical Memorandum provides a summary of the available data for both the Titus Site and the STF Site, and demonstrates that there is no technical information or data to support a conclusion that the STF Site is the source of groundwater contamination beneath the Titus Site. In fact, the available data support a conclusion that the STF Site is highly unlikely to be the source of impacts to the Titus Site. It is therefore not reasonable to conclude that the STF Site could be a source of TCE contamination to the Titus Site.

It should be noted that there are other, more proximal potential sources of groundwater contamination to the Titus Site than the STF Site. Under the Model Toxics Control Act and its implementing regulations and Ecology policy, the owners of the Titus Site bear the responsibility to identify, to a reasonable level of certainty, the actual source of the detected groundwater impacts.

#### SUMMARY OF TITUS SITE INVESTIGATIONS AND TCE DATA

The location of the Titus Site is indicated on Figure 2. The Titus Site is located approximately 160 feet east of the closest point to the STF Site.

TCE is a known degreasing agent commonly used in automotive repair and maintenance services—some of the current and historical services provided at the Titus Site. As seen on the historical graphics included in Attachment D, multiple potential sources for TCE in soil and groundwater existed at the Titus Site, including the floor drain of the service area.

The Titus Site is immediately adjacent or near several properties that are likely to have used TCE or other chlorinated volatile organic compounds (cVOCs) in their historical processes. Those properties may have included:



- AST, Inc., located at 4110 South Washington Street, Tacoma, Washington;
- Tacoma Subaru, located at 3838 South Tacoma Way, Tacoma, Washington;
- Tacoma Dodge Chrysler Jeep RAM, located at 4101 South Tacoma Way, Tacoma, Washington;
- Mopar Express Lane Fast Oil Changes, located at 3833 South Tacoma Way, Tacoma, Washington;
- Caliber Collision, located at 4112 South Washington Street, Tacoma, Washington; and
- Max Auto Repair, located at 4308 South Washington Street, Tacoma, Washington.

Each of these properties is closer to the Titus Site than the STF Site and more likely to have used TCE or related compounds. The owners of the Titus Site do not appear to have completed any additional assessment to evaluate whether any of those properties were the source of its contamination.

SECOR International Incorporated (SECOR) performed a Phase II ESA at the Titus Site in 2001, as documented in the SECOR *Phase II Subsurface Investigation Report*, dated October 11, 2001 (SECOR Phase II Report). Attachment D includes a graphic of sampling locations and summary data tables from historical reports. The SECOR Phase II Report identified concentrations of TCE in groundwater at 15 and 49 micrograms per liter ( $\mu$ g/L) at borings B-4 and B-5, respectively.

SECOR performed an additional investigation to further assess impacts to groundwater at the Titus Site by installing and sampling four monitoring wells (MW-1 through MW-4), as documented in the SECOR *Additional Environmental Investigation Report*, dated December 21, 2001 (SECOR Additional Investigation Report). TCE was detected in groundwater at 130, 33, 62, and 11  $\mu$ g/L at MW-1 through MW-4, respectively. The maximum TCE concentration of 130  $\mu$ g/L was observed at MW-1 on the east side of the Titus Site, which is the well farthest from the STF Site (530 feet east of the nearest boundary of the STF Site). The minimum TCE concentration of 11  $\mu$ g/L was observed at MW-4 on the west side of the Titus Site, located closest to the STF Site (180 feet east of the nearest boundary of the STF Site).

The identified direction of groundwater migration was northeasterly. If the STF Site were the source of impacts to the Titus Site, then application of standard hydrogeological and scientific principles dictates that TCE concentrations in groundwater would be higher closest to the STF Site and lower with increasing distance hydraulically downgradient. That is exactly the opposite of the observed concentrations.

Stemen Environmental, Inc. (Stemen) collected additional groundwater samples on October 12, 2002, as documented in the *Groundwater Monitoring Report* letter, dated August 21, 2002 (Stemen Groundwater Report). Attachment D includes graphics of monitoring well locations and analytical reports. Samples were collected from the four existing monitoring wells installed by SECOR in 2001. TCE was detected in groundwater at 92, 38, 99, and 10  $\mu$ g/L at MW-1 through MW-4, respectively. No other VOCs were detected in groundwater. The maximum concentration of 99  $\mu$ g/L was observed at MW-3 near the center of the Titus Site, directly north of the automotive service center. The minimum concentration of 10  $\mu$ g/L observed at MW-4 on the west side of the Titus Site. The data again document that the lower concentrations of TCE were detected closer to the STF Site, which does not support a conclusion that the STF Site was the source of those impacts.



As stated in the SECOR Additional Investigation Report, the apparent direction of groundwater migration on the Titus Site was north-northeast. The highest TCE concentrations in groundwater were identified in the eastern portion of the Titus Site. Additionally, Titus's own consultant (SECOR) identified the potential for sources of TCE in groundwater to be either south or east of the Titus Site, not from the west. If impacts in groundwater were migrating from the STF Site to the west toward the Titus Site, it is reasonable to expect higher (and likely much higher) TCE concentrations in the western portion of the Titus Site than the eastern portion, which is not the case. Moreover, any source of TCE on the STF Site with sufficient strength to reach the Titus Site would likely be broadly distributed with generally consistent concentrations beneath the Titus Site. The patchy and localized variations in TCE concentrations beneath the Titus Site do not support a conceptual site model in which the STF Site is the source of the impacts to groundwater on the Titus Site.

#### SUMMARY OF STF SITE INVESTIGATIONS AND TCE DATA

The STF Site underwent extensive assessment and remediation under the EPA Superfund process, eventually resulting in a Record of Decision (ROD). Multiple phases of remedial investigation (RI), completion of a Feasibility Study (FS), Remedial Design (RD), and Remedial Action (RA), implementation of a Cleanup Action Plan (CAP), and ultimately regulatory closure were performed under the direct supervision of EPA.

The RI of the STF Site included assessing the potential presence of cVOCs (including TCE) in soils and groundwater. The results of the RI/FS/RD process <u>did not</u> identify TCE as a contaminant of concern (COC) at the STF Site in the ROD. Additionally, there is no mention of TCE as a COC in groundwater at the STF Site in the *Site Development and Institutional Controls Plan* (SDICP).

Attachment E includes the historical analytical results for TCE in groundwater collected during the RI for the STF Site. Locations of the associated monitoring wells are presented on Figure 2. TCE was only sporadically detected on the STF Site at very low concentrations, ranging from 1 to 6  $\mu$ g/L—as much as two orders of magnitude lower than observed concentrations on the Titus Site. The nearest sampling location to the Titus Site was CBS-3A, located approximately 1,500 feet southwest of the southwest corner of the Titus Site. The maximum concentration of TCE was observed in 1991 at 6  $\mu$ g/L, which is the maximum concentration of TCE observed anywhere on the STF Site.

The STF Site is located within a well-documented hydrologic region known as the South Tacoma Channel. Despite the variability of localized groundwater flow measured during the RI, regional bulk groundwater flow across the STF Site and within the South Tacoma Channel is southerly toward Commencement Bay, not easterly toward the Titus Site. For a release of TCE on the STF Site to have impacted the Titus Site at the concentrations noted there (130  $\mu$ g/L), it is reasonable to expect that concentrations at least one to two orders of magnitude higher would be present on the STF Site. An RI/FS conducted under the supervision of the EPA Superfund program would not have failed to detect a TCE plume in shallow groundwater with concentrations between 1,000  $\mu$ g/L and 10,000  $\mu$ g/L, and such a plume has not been detected or observed beneath the STF Site in the 20 years since the RI was completed.



#### **SUMMARY AND CONCLUSIONS**

The following summarizes the available information and the conclusions supported by the existing data from both the STF Site and the Titus Site:

- The STF Site was extensively investigated over a 4-to-5-year period under the supervision
  of the EPA Superfund program, including the assessment of historical uses of TCE and
  impacts to the STF Site by TCE. The RI did not identify a specific source of TCE or extensive
  TCE impacts to groundwater. Accordingly, TCE was not included as a COC for the STF Site.
- The claim that the STF Site was a source of TCE contamination migrating to any nearby property was not addressed in any of the periodic review letters or SDICP review by EPA. If it were the opinion of the EPA that the STF Site were such a source, EPA is mandated to require additional investigation to assess this possibility. No such requests were made in the 17 years between 2003 and the most recent SDICP response in 2020.
- TCE was not identified in a location hydraulically upgradient of the Titus Site.
- The maximum concentration of TCE detected on the STF Site was 6 µg/L in October 1991 at a location approximately 1,500 feet southwest of the Titus Site. There has been no commercial or industrial activity on the STF Site since the 1980s. TCE concentrations in groundwater at the Titus Site were observed to be as high as 130 µg/L. Because contaminant concentrations attenuate with distance traveled, substantially higher concentrations of TCE would need to be present on the STF Site for it to be considered a potential source of TCE for the Titus Site, which is not the case. Any such higher concentrations would also need to be in locations hydraulically upgradient of the Titus Site, which is also not the case.
- Even if the source of TCE in groundwater at the Titus Site does not originate on the Titus Site, there are or were multiple historical properties proximal to the Titus Site with uses that may have included TCE or related compounds. None of those properties were assessed by Titus as potential sources of impact to its property.
- The characterization of the STF Site under EPA's oversight and supervision was thorough
  and exhaustive. The statement from EPA's 2003 letter that the STF Site is the source of
  existing groundwater contamination at the Titus Site runs counter to EPA's other conclusions
  regarding the STF Site and provides no technical support to justify the statements made.

Based on this information and knowledge, it is our opinion that the STF Site is not a source of TCE contamination to the Titus Site.

On behalf of Bridge, TRC requests that EPA rescind the September 28, 2003 letter identifying the STF Site as the likely source of groundwater contamination at the Titus Site. To the extent that Ecology's September 25, 2002 NFA determination relies on the assumption that the STF Site is the source of TCE



contamination in groundwater at the Titus Site, TRC requests that the NFA determination and future periodic reviews be adjusted accordingly.

#### **REFERENCES**

- SECOR International Incorporated (SECOR). 2001. Phase II Subsurface Investigation, Bruce Titus Nissan Subaru, 4030 South Tacoma Way, Tacoma, Washington. 11 October.
- SECOR International Incorporated (SECOR). 2001. Additional Environmental Investigation Report, Bruce Titus Nissan Subaru, 4030 South Tacoma Way, Tacoma, Washington. 21 December.
- Stemen Environmental, Inc. (Stemen). 2002. Groundwater Monitoring Report, Bruce Titus Nissan Subaru, 4030 South Tacoma Way, Tacoma, Washington. 21 August.
- Stemen Environmental, Inc. (Stemen). 2002. Additional Environmental Investigations Report, Bruce Titus Nissan Dealership Site, 4030 South Tacoma Way, Tacoma, Washington. 21 August.
- Stemen Environmental, Inc. (Stemen). 2002. Re: Comfort Letter for Commercial Properties Located at 4030 South Tacoma Way, Tacoma, Washington. 23 August.
- Washington State Department of Ecology (Ecology). 2012. Period Review Report, Bruce Titus Nissan Dealers, 4030 South Tacoma Way, Tacoma, Washington. October.

#### **ENCLOSURES**

### **Figures**

Figure 1 General Vicinity Map Figure 2 Site Representation

#### **Attachments**

Attachment A Ecology 2002 NFA Letter
Attachment B EPA 2003 Comfort Letter

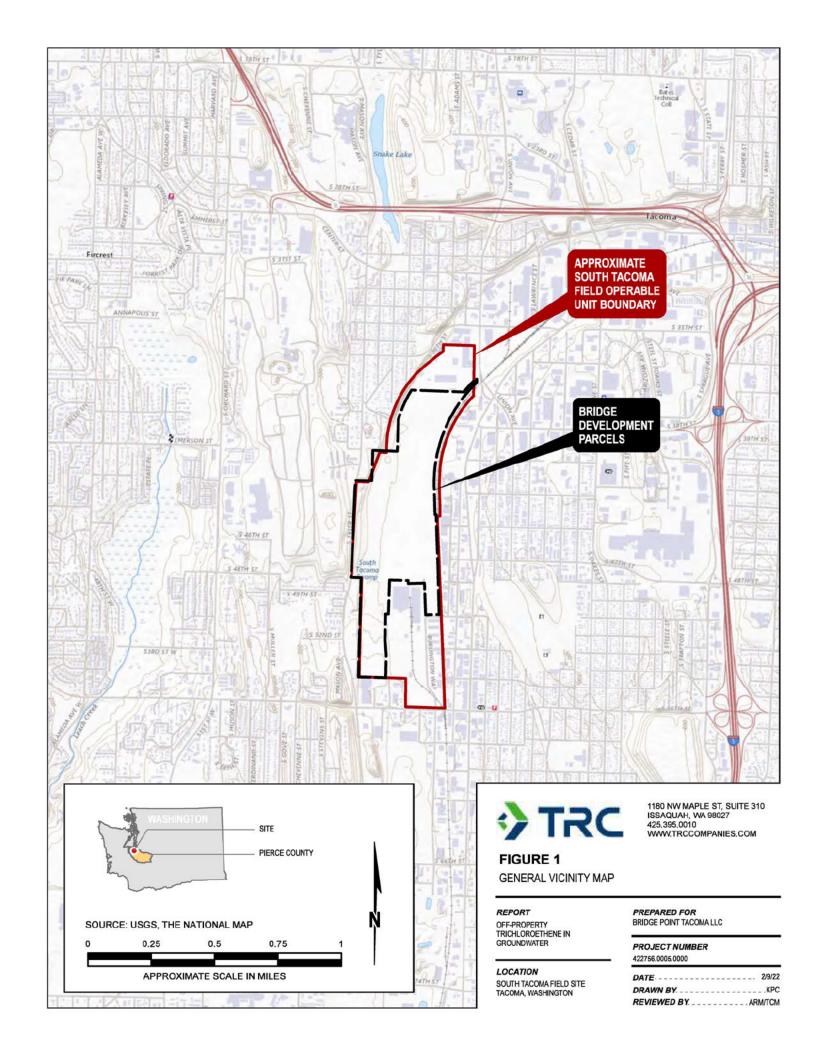
Attachment C Titus Site Periodic Review Reports

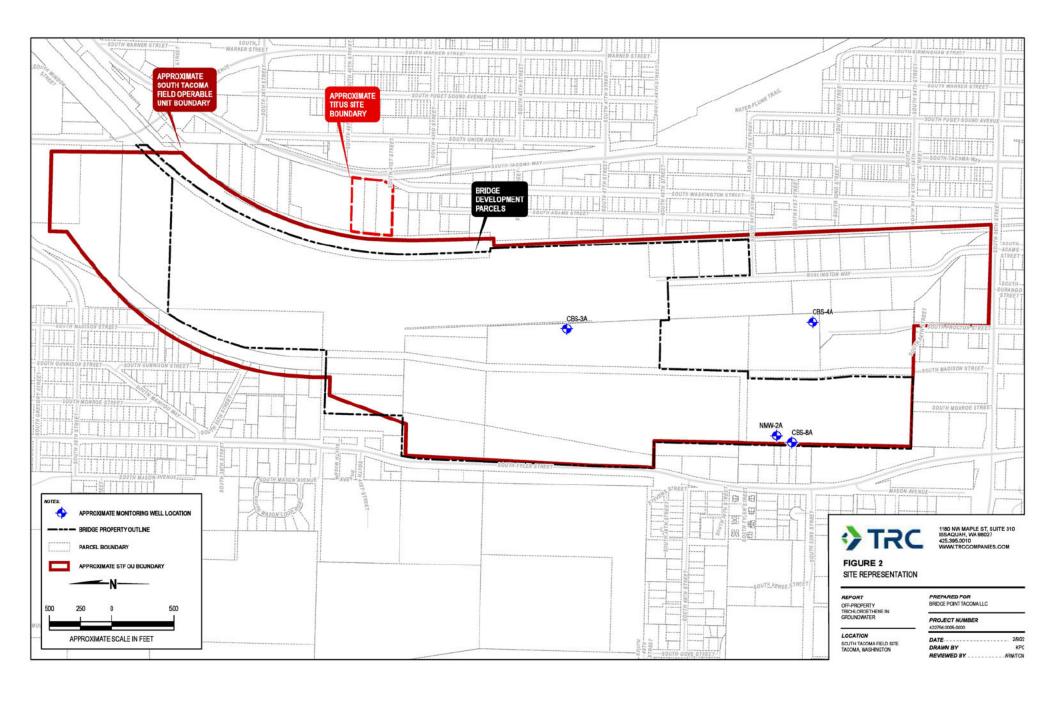
Attachment D Historical Titus Site Graphics and TCE Summary Data

Attachment E Historical STF Site TCE Summary Tables









Attachment A Ecology 2002 NFA Letter



#### STATE OF WASHINGTON

## DEPARTMENT OF ECOLOGY

P.O. Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

September 25, 2002

## CERTIFIED MAIL



Your address is in the **Deschutes** watershed

Mr. Paul Stemen Stemen Environmental, Inc. P.O. Box 3644 Lacey, WA 98509-3644

### INTERIM NFA LETTER

Dear Mr. Stemen:

Thank you for submitting the results of your independent remedial action(s) for review by the Washington State Department of Ecology (Ecology). Ecology appreciates your initiative in pursuing this administrative option under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. Ecology's Toxics Cleanup Program has reviewed the following information relating to the Bruce Titus Nissan Dealers site, located at 4030 South Tacoma Way, Tacoma, Washington:

- SECOR International Incorporated, <u>Phase II Subsurface Investigation</u>, <u>Bruce Titus Nissan Subaru</u>, <u>4030 South Tacoma Way</u>, <u>Tacoma</u>, <u>Washington</u>, October 11, 2001,
- SECOR International Incorporated, <u>Additional Environmental</u> <u>Investigation Report, Bruce Titus Nissan Subaru, 4030 South Tacoma</u> Way, Tacoma, Washington, December 21, 2001,

(P) (18

Mr. Paul Stemen September 25, 2002 Page 2 of 3

Stemen Environmental, Inc, <u>Additional Environmental Investigations</u>
 <u>Report, Bruce Titus Nissan Dealership Site, 4030 South Tacoma Way,</u>
 <u>Tacoma, Washington, August 21, 2002.</u>

The above listed reports will be kept in the Central Files of the Southwest Regional Office (SWRO) of Ecology for review by appointment only. Appointments can be made by calling the SWRO resource contact at (360) 407-6365.

Based upon the above listed information, Ecology has determined that, at this time, the release of total petroleum and other organic hydrocarbons into the <u>soil</u> no longer poses a threat to human health or the environment. Based upon the above listed information, no further remedial action will be required for the <u>soil</u> at the Bruce Titus Nissan Dealership, located at 4030 South Tacoma Way, Tacoma, Washington. However, please note that because your actions were not conducted under a consent decree with Ecology, this letter is written pursuant to RCW 70.105D.030(1)(i) and does not constitute a settlement by the state under RCW 70.105D.040(4) and is not binding on Ecology.

Ecology's no further action (NFA) determination is made only with respect to the releases and contamination identified in the documentation for the Bruce Titus Dealership site listed above. This no further action determination applies only to the <u>soils</u> affected by the release(s) at 4030 South Tacoma Way, Tacoma, Washington, as identified in the reports. It does not apply to any other release or potential release at the property, any other areas on the property, nor any other properties owned or operated by Mr. Bruce Titus.

However, since the ground water beneath the Bruce Titus Dealership site is contaminated with chlorinated hydrocarbons, Ecology's no further action determination is contingent upon filing a Restrictive Covenant for the ground water with the Pierce County auditor's office within thirty (30) days of the date of this letter. No later than thirty (30) days from the date the Restrictive Covenant is recorded, you must send a notarized copy of the recorded Restrictive Covenant to Ecology. Ecology's no further action determination automatically terminates and will have no force and effect if you fail to record this Restrictive Covenant or violate any portions of the Restrictive Covenant. WAC 173-340-440(6) requires you to notify and seek comment from a city or county department with land-use planning authority for real property subject to the Restrictive Covenant. No ground-water monitoring will be required as part of the restrictive covenant for this site. A copy of the recorded Restrictive Covenant will be attached to this NFA Letter as attachment A.

Since the ground water beneath the Bruce Titus Dealership site is contaminated, a final NFA letter cannot be issued for this site. A final NFA letter could be issued once it is shown that ground water beneath the Bruce Titus Dealership site is no longer contaminated. Any ground-water testing must demonstrate that the ground water

Mr. Paul Stemen September 25, 2002 Page 3 of 3

concentration for chlorinated hydrocarbons is below MTCA regulatory levels for four (4) consecutive quarters. Apparently, a "Comfort Letter" will be generated by US Environmental Protection Agency that will address ground-water contamination pertinent to this site. Once this letter has been generated it will be attached to this NFA Letter as attachment B.

Ecology will update its database to reflect this interim NFA determination.

The State, Ecology, and its officers and employees are immune from all liability and no cause of action of any nature may arise from any act or omission in providing this determination.

If you have any questions about any of the information presented in this letter, please contact me at (360) 407-6267.

Sincerely,

Charles S. Cline

Toxics Cleanup Program Southwest Regional Office

harlas of Olive

CC:as

cc:

Mr.(b)(6)

Ms. Kris Flint, Attention: ECL-111, U.S. Environmental Protection Agency Mr. Mark LaVergne, Tacoma-Pierce Co. Health Dept.

# Attachment B EPA 2003 Comfort Letter

# 6.5 United States Environmental Protection Agency Comfort Letter



OEPT OF ECOLOGY/54P

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 '03 rp

3 FFR -3 . P1 :28

1200 Sixth Avenue Seattle, Washington 98101

JAN 28 2003

Reply To Aun Of: BCL-117

Paul Stemen Stemen Environmental, Inc. P. O. Box 3664 Lacey, WA 98509-3644

RE: Development of Property Adjacent to South Tacoma Fields Operable Unit (STF OU) of Commencement Bay/Nearshore Tideflats Superfund Site, Tacoma, Washington

Dear Mr. Stemen:

I am writing in response to your August 23, 2002 letter, and the Environmental Site Assessment information you provided for the property at 4030 South Tacoma Way which is adjacent to the South Tacoma Fields operable unit of the Commencement Bay /Nearshore Tideflats Superfond Site in Tacoma. This neighboring property, currently owned by (b) (6) , is currently the site of the Bruce Titus Nissan Dealership and includes tax parcels R0200134014, R0220134015, and R0220134016 ("Titus Property"). Cur response is based on the facts presently known to the U.S. Environmental Protection Agency (EPA) and the information you provided.

EPA's Policy Toward Owners of Property Containing Contaminated Aquifers (the Policy) provides that EPA, in an exercise of its unforcement discretion, will not take an enforcement action against parties who meet the conditions and criteria described in the Policy. Based on the available information, it appears likely that contamination observed in groundwater at the Titus Property migrated from the STF OU. EPA believes that the Policy applies to your situation. I am enclosing a copy of the policy for your review.

If you have any questions about the above information, please call Kris Flint, EPA's Remedial Project Manager for the STP OU, at (206) 553-8155.

Sincerely,

Michael F. Gearheard, Director Environmental Cleanup Office

Enclosure

cc;

Cluck Cline, Ecology/SWRO

Bruce Titus

(b) (6)

Chuck-Call me if you have any questions. Shanks for your help with shall Kros

Printed on Recycled Paper

Attachment C Titus Site Periodic Review Reports



# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

September 6, 2017

Mr. Bruce Titus President/Owner Bruce Titus Automotive Group 6221 Tacoma Mall Blvd. Tacoma, Washington 98409

## Re: Notice of Second Periodic Review Conducted at the following Hazardous Waste Site:

• Name: Bruce Titus Nissan Dealers

Address: 4030 South Tacoma Way, Tacoma, Washington 98411

Facility/Site Number ID Number: 41363269

Cleanup Site ID Number: 3481

Dear Mr. Titus:

Under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, which governs the cleanup of hazardous waste sites in Washington State, the Department of Ecology (Ecology) must conduct a periodic review of all sites with institutional controls and Environmental Covenants every five years. This letter serves to inform you that a second periodic review has been conducted at the Bruce Titus Nissan Dealers Site.

The periodic review process includes the following steps:

- Confirmation that the Environmental Covenant is still active and recorded with the Title to the property.
- A review of any monitoring data collected since the cleanup was completed or since the last review was conducted.
- A Site visit to confirm the institutional controls and conditions of the Environmental Covenant are being followed.
- A 30-day public comment period on the draft periodic review report.

Based on the information collected during this periodic review, the Bruce Titus Nissan dealers Site appears to meet the requirements of Chapter 173-340 WAC, and the selected remedy continues to be protective of human health and the environment.

Mr. Bruce Titus September 6, 2017 Page 2

The 30-day public comment period on the draft periodic review report was ended on August 21, 2017. We received no public comments on the draft report. Enclosed is a copy of the final periodic review report for your information.

A periodic review will continue to be required every five years as long as institutional controls and/or an environmental covenant are required to protect human health and the environment. The next periodic review will be due in August 2022.

If you have any questions regarding this letter or if you would like additional information regarding the cleanup of hazardous waste sites, please call me at (360) 407-6335. Thank you for your cooperation.

Singerely,

Panjini Balaraju, P.E.

Toxics Cleanup Program

Southwest Regional Office

Enclosure: (1)

By Certified Mail: 91 7199 9991 7037 7496 0333]

cc: Stephanie Clark, Tacoma Nissan

Central Files.



# SECOND PERIODIC REVIEW REPORT FINAL

Bruce Titus Nissan Dealers Facility Site ID#: 41363269 Cleanup Site ID#: 3481

4030 South Tacoma Way Tacoma, Washington 98411

Southwest Regional Office TOXICS CLEANUP PROGRAM

August 2017

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## 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup conditions and monitoring data to ensure that human health and the environment are being protected at the Bruce Titus Nissan Property (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). The first periodic review was conducted in August 2012. This periodic review evaluates the period from August 2012 through August 2017.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of trichloroethylene (TCE) in groundwater exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for groundwater are established under WAC 173-340-720. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action.
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- (c) Or, as resources permit, whenever the department issues a no further action (NFA) opinion.
- (d) And one of the following conditions exists:
  - 1. Institutional controls or financial assurance are required as part of the cleanup.
  - 2. Where the cleanup level is based on a practical quantitation limit.
  - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

## 2.0 SUMMARY OF SITE CONDITIONS

## 2.1 Site History

The Bruce Titus Nissan facility is located at 4030 South Tacoma Way in Tacoma in Pierce County, Washington (Vicinity Map - Appendix 6.1). The Bruce Titus Nissan dealership was constructed in 1989 and continues to operate as an automobile dealership and service center (Site Plan – Appendix 6.2).

The subject property is bordered to the north by a veterinary clinic and additional parking for the subject property followed by a vacant used car lot; to the west by railroad tracks followed by undeveloped land; to the south by a machine design and manufacturing facility; to the southeast by a used car lot; and to the east by South Tacoma Way followed by a new and used car dealership.

## 2.2 Site Investigations and Cleanup

A Phase I Environmental Site Assessment (ESA) was completed by SECOR for the Site in 2001. The ESA revealed several potential environmental impacts to the property, including poor housekeeping, and the unknown integrity of hydraulic hoists, a trench drain, and an oil water separator (OWS).

In September 2001, SECOR completed a Phase II subsurface investigation at the Site. This investigation included the advancement of eight soil borings to collect soil and groundwater samples. Borings were advanced to a maximum depth of 50 feet below ground surface (bgs). TCE was detected in borings B-4 and B-5 at concentrations of 15 micrograms per liter (µg/L) and 49 µg/L respectively. The MTCA Method A cleanup level for TCE is 5 µg/L. Methylene chloride was also detected in B-5 at 5.9 µg/L, which exceeded the MTCA Method A cleanup level of 5 µg/L. TCE was not detected in soil samples from any of the soil borings at concentrations exceeding MTCA Method A cleanup levels.

In December 2001, SECOR installed four monitoring wells at the Site. Soil samples were collected during the well installation. Analysis of soil samples did not indicate the presence of any contamination at concentrations exceeding MTCA Method A cleanup levels. Several contaminants were detected in groundwater at concentrations exceeding MTCA Method A or Method B cleanup levels, including TCE, Chloroform, 1,2 Dichloropropane and Bromodichlormethane.

In 2002, Stemen Environmental, Inc. advanced nine additional soil borings at the Site. Nine soils samples were collected from the borings and submitted for laboratory analysis of volatile organic compounds (VOCs). No VOCs were detected in any of the samples at concentrations exceeding MTCA Method A or Method B cleanup levels. Groundwater samples were also collected from the four permanent monitoring wells and analyzed for VOCs. TCE was detected in all four wells at concentrations exceeding MTCA Method A cleanup levels. Groundwater monitoring/sampling data for TCE is presented in Table 1. Detailed groundwater monitoring

data is presented as Appendix 6.4. Soil borings and groundwater monitoring/sampling locations are included as Appendix 6.2 and 6.3.

TABLE 1: Groundwater Monitoring/Sampling Data

Analyte	Concentration Range (µg/L)	Cleanup Level (µg/L)
TCE	49 – 120 <sup>a</sup>	. 5

### a: above cleanup level

Stemen Environmental suggested that groundwater contamination resulted from the adjacent South Tacoma Field property (Superfund site) located south of the Site. VOC contamination has been confirmed in soil and groundwater at this adjacent property. A comfort letter from the United States Environmental Protection Agency (USEPA) was obtained to substantiate the above assertion. A copy of USEPA's is included as Appendix 6.5.

#### 2.3 Restrictive Covenant

Due to the probable off-site source of groundwater contamination, it was determined that the Site was eligible for a NFA determination if a RC was recorded for the property. A RC was recorded for the Site on December 13, 2002 which imposed the following limitations:

- 1. Any taking of groundwater from the Property or any activities upon the Property that may interfere with the clean-up action, operation and maintenance, monitoring, or other measures necessary to assure the integrity of any cleanup action and continued protection of human health and the environment are prohibited.
- 2. Any activates that may result in the release of groundwater from the property are prohibited.
- 3. Before any interest in the Property may be conveyed to another, the owner of the Property must first give the Department of Ecology of the State of Washington thirty (30) days prior written notice. No conveyance of title, easement, lease or other interest in the Property shall be consummated by the Property owner without adequate and complete provision for compliance with WAC 173-340-440, as it may be amended from time to time.
- 4. The owner of the Property shall at all times restrict leases to uses and activities consistent with this Declaration of Covenants, and shall all lessees of the restrictions on the use of the Property.
- 5. Notice of these covenants must be included in any instrument conveying any interest in all or any portion of the Property.

- 6. The owner of the Property must notify the Department of Ecology of the State of Washington and receive its approval for any use of the Property in a manner that is inconsistent with these covenants. In the event the Department of Ecology, after public notice and comment, approve the proposed changes, these covenants shall be amended to reflect the change.
- 7. The Department of Ecology of the State of Washington and its designated representatives shall have the right, at reasonable times and upon reasonable notice, to enter the Property for the purpose of evaluating compliance, including the right to take samples, inspect any remedial actions taken on the Property, and to inspect records.
- 8. <u>Notification of Local Government:</u> Prior to these covenants being executed and recorded, the Declarant will notify the Tacoma-Pierce County Health Department and seek its comment.
- 9. <u>Removal of Covenants</u>: These covenants may not be removed from the Property without the prior written approval of the Department of Ecology of the State of Washington.

The RC is available as Appendix 6.6.

Following the remedial actions, an interim NFA determination letter for soils was issued for the Site on September 25, 2002. This letter stated that a final NFA determination could be issued once it is shown that groundwater beneath the Site is no longer contaminated. To show that groundwater beneath the Site is no longer contaminated, the groundwater concentration of VOCs must be clean for four consecutive quarters.

## 3.0 PERIODIC REVIEW

## 3.1 Effectiveness of completed cleanup actions

Based upon the Site visit conducted on June 30, 2017, the Site continues to operate as an automobile dealership. There have not been any attempts to withdraw or use groundwater from the Site. The asphalt and building structures appears in satisfactory condition and no repair, maintenance, or contingency actions have been required. A photo log is available as Appendix 6.7.

The RC for the Site was recorded and is in place. This RC prohibits activities that will result in the release of contaminants at the Site without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This RC serves to ensure the long term integrity of the cap.

Groundwater with TCE concentration higher than the Site specific cleanup level is still present at the Site. The RC for the property will ensure that the groundwater extraction and use remains restricted at the Site.

# 3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new relevant scientific information for the contaminants related to the Site.

# 3.3 New applicable state and federal laws for hazardous substances present at the Site

Cleanup levels have not changed for contaminants of concern at the Site since the interim no further action determination was issued in 2002.

## 3.4 Current and projected site use

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

## 3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

# 3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below selected site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

## 4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Groundwater cleanup levels have not been met at the standard point of compliance for the Site; however, the cleanup action has been determined to comply with cleanup standards since the long-term integrity of the isolation or containment system is ensured, and the requirements of WAC 173-340-740 (6)(f) for isolation or containment technologies are being met.
- The RC for the property is in place and continues to be effective in protecting public
  health and the environment from exposure to hazardous substances and protecting the
  integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the RC continue to be met to be protective of human health and the environment. No additional cleanup actions are required by the property owner at this time. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the surface cover is maintained.

### 4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

## 5.0 REFERENCES

SECOR, Phase II Subsurface Investigation. October 11, 2001.

SECOR, Additional Environmental Investigation Report. December 21, 2001.

Stemen Environmental, Inc. Additional Environmental Investigations Report. August 21, 2002.

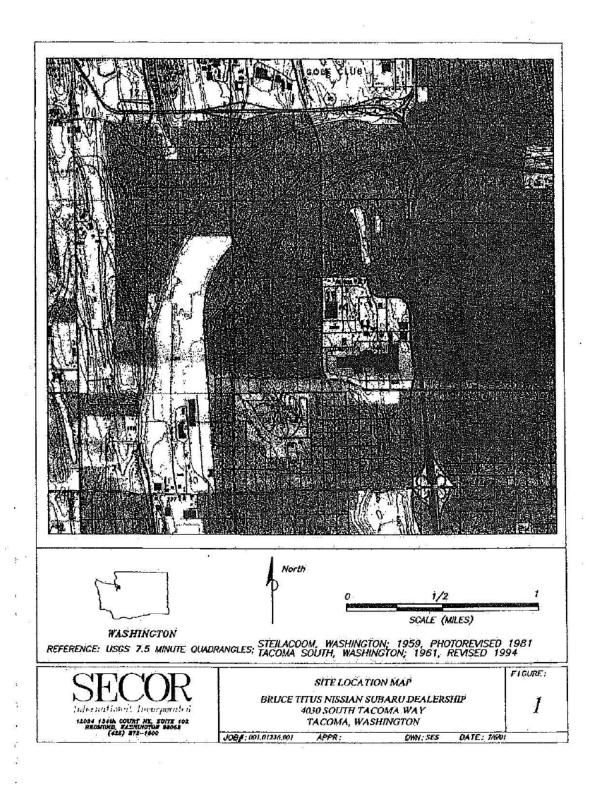
Stemen Environmental, Inc. Groundwater Monitoring Report. August 21, 2002.

Ecology, 2002, Restrictive Covenant.

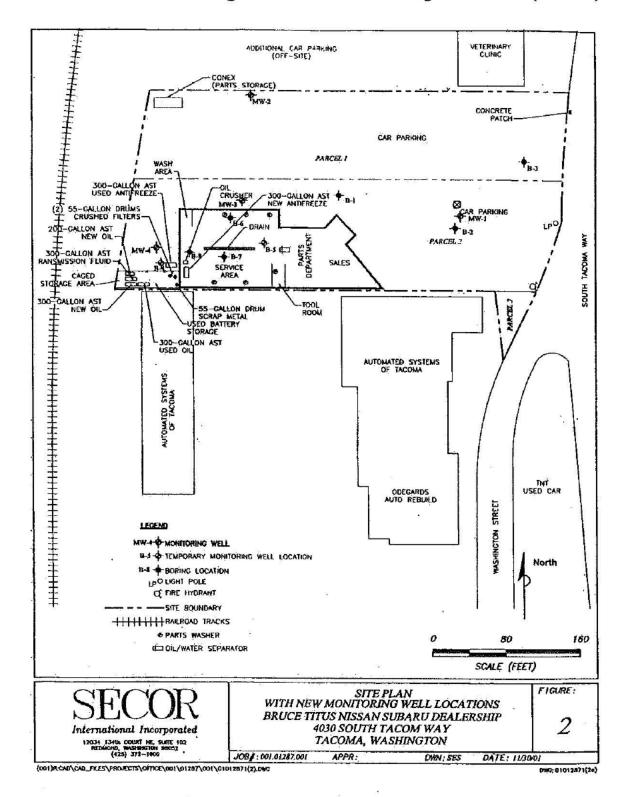
Ecology, Site Visit, June 30, 2017.

# 6.0 APPENDICES

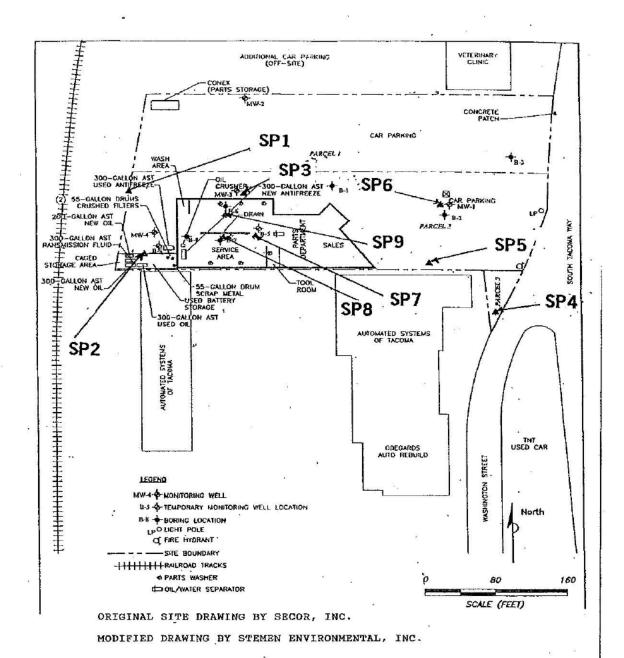
# 6.1 Vicinity Map



## 6.2 Site Plan: Monitoring Wells and Soil Boring Locations (9/2001)



# 6.3 Soil Sampling Locations (August 2002)



Groundwater Monitoring/Sampling

Results

Table 1 Groundwater Analytical Results Bruce Titur Meren Subaru 4030 South Tacoma Way Tacems, Washington EEGOR PH: 001,01268.001

							man 1 Test	malaura F	Trerocarbons'	-		MILES DESIGNATION	Memls	1					yoo'
500	Sample	Depth to	San or many	DIEX	Compounds'						2.2	Cadadum	Chromium	Lend	Mereury	Seles um	Silvar	LCB3	YULE
Sample ID		water (feet)	Benzent	Toluebs	Ethylbearens	Xylenes	Cambre	Diesel	Heavy Oil	Arsenic	BERGE	CATINITAL			C20000		MD	NO	15758
1975(5)	. 1	45,00	MD	ND.	ND	NO.	NO	NG	NO.	40	164	HD	748	-16	ND	6.7	MID	1	
P-ABA	N/MO1	43,00				1000000		740	ND	.00	3.394	64	454	111	13	10	NO		0157/141/14
3-1W	7/19/0:	45,00	HQ	NO.	100	-0	NO.	- 20	1 10	2									
	W2DICT	43,00		2		-		-	<b>⊢</b> -	120 Mary	100 30	Name of Street	E-reserve		1				2 272,539,00
MTCA Meh		dwaler Clauser	,	1000	700	1090	1,000*	500	350	5	364**	,	io	15	1 1	1911	10.4	0.1	375***

All data reported in micrograms per liter (ug/L).

1 - Bareanc, othytomenne, whoma, and xylenes by Washingen State Department of Ecology (Ecology) Method HWTFM-G/STEX

\* Total potroloum hydrocarbone in the diesci-range and motor off-range tankyzed using Ecology Medical NWTFH-Dx.

Total petroloum hydrotasbans in the pasoline-range analyzed using Boology Method NWIPH-Q;

"- Total and distolved metals by EPA Series 6000/1000. Grey highlighted boxes are disserved results. B-5W was analyzed for disserved metals for comparative purposes.

"= Yalyoklerinated biphenyls by EPA Method 1982.

3 - Valuable organic composeds welly and by EFA Method (2008). All studyles either non-detect or below the MTCA Cleanup Levels extent for those present.

Tox - Trichlerosthese or trichleroethylese detected at 15 µg/L.

^ = 49 μg/L TCE, 5.9 μg/L methylene chloride, 0.21 μg/L ethyl berætne, 0.31 μg/L xylene,

- Cleanspleved for passifine when no bounters present
- Ho Method A cleanup value established, current Mathod B formula value presented

\*\* = Clearup Loval listed for TCE and methylone chlorids. Other VOCs detected in 8-5W were below the MTCA Method Clearup Lerel.

NA - New Mathed & Controls values not yet available from Ecology

Table 3

Groundwater Analytical Results-Well Installation Bruce Titus Nissan Subaru

4030 South Tacoma Way Tacoma, Washington SECOR PN: 001.01287.001

	<del></del>		Yolatile Organic Compounds											
Monitoring Well	Date	Depth to water (feet bgs)	(cls) 1,2-Dichleroethene	Chloreferm		Benzens	1,2 Dichlerspropase	Bromedichloromethane	Tolugne	Lthyibenzene	Xylenea			
MW-I	11/21/01	41,01	1.0	0,85	1	_ ND	kD	ND	8,23	מא	ND_			
MW-1	11/21/01	030	ND	5,20		ND .	100	ND	ND	ND	ND.			
C-WM	11/21/01	43,00	2.1	, T		ND	מין		1.1	0.31	2.15			
- МЖ-4	11/21/01	42.73	מא	1,		0,35	סא	130	2.0	0.52	נגנ			
· 5		Cleanup Levels	NA.	NA	5	5	Ak .	NA .	1,000	750	1,000			
400		Cleanup Levels	72.0	7,17	3.91	0.795	0,643	0,796	1,600	100	16,000			

#### Notes:

Shaded results indicate a detection above a cleanup level.

All data reported in micrograms per liter (µg/L).

1 - Volatile organic compounds analyzed by EPA Method 8250B. All analytes non-delect except for those presented.

<sup>1</sup> TCE = Trichloroethene or trichloroethylene

# 6.5 United States Environmental Protection Agency Comfort Letter



DEPT OF ECOLOGY/SAFC

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10 03 FFB -3 P1 :28

REGION 10 1200 Sixth Avenue Seattle, Washington 98101

JAN 28 2003

Reply To Attn Of: ECL-117

Paul Stemen Stemen Environmental, Inc. P. O. Box 3664 Lacey, WA 98509-3644

RE: Development of Property Adjacent to South Tacoma Fields Operable Unit (STF OU) of Commencement Bay/Nearshore Tideflats Superfund Site, Tacoma, Washington

Dear Mr. Stemen:

I am writing in response to your August 23, 2002 letter, and the Environmental Site Assessment information you provided for the property at 4030 South Tacoma Way which is adjacent to the South Tacoma Fields operable unit of the Commencement Bay /Nearshore Tideflats Superfund Site in Tacoma. This neighboring property, currently owned by (b) (6) , is currently the site of the Bruce Titus Nissan Dealership and includes tax parcels R0200134014, R0220134015, and R0220134016 ("Titus Property"). Our response is based on the facts presently known to the U.S. Environmental Protection Agency (EPA) and the information you provided.

EPA's Policy Toward Owners of Property Containing Contaminated Aquifers (the Policy) provides that EPA, in an exercise of its enforcement discretion, will not take an enforcement action against parties who meet the conditions and criteria described in the Policy. Based on the available information, it appears likely that contamination observed in groundwater at the Titus Property migrated from the STF OU. HPA believes that the Policy applies to your situation. I am enclosing a copy of the policy for your review.

If you have any questions about the above information, please call Kris Flint, EPA's Remedial Project Manager for the STF OU, at (206) 553-8155.

Sincerely,

Michael F. Gearheard, Director Environmental Cleanup Office

Enclosure

ce: Chuck Cline, Ecology/SWRO

Broce Titus Brian Wilson

Chuck- Call me if you have any questions. Shanks for your help with this! & Kros

Printed on Recycled Paper

### 6.6 Restrictive Covenant

200212130597 5 PGS

12-13-2002 02:12pm \$23.00 PIERCE COUNTY, WASHINGTON oryun

PESSIVED

After Recording Return To:

'02 DEC 26 100 122

(b) (6) (b) (6) Tacoma, WA 98407

#### RECORDING SUMMARY

Document Title:

Declaration of Covenants

Grantor:

(b) (6)

Trustee

Grantee:

(b) (6) Trustee

Reference number of document assigned or

released:

Abbreviated Legal Description:

A portion of the NE 1/2 of the SE 1/2 of S13,

T20 N, R2E of W.M. (Full Legal Description

on pp. 1 & 2)

Assessor's Tax Parcel Number:

022013-4-014, 022013-4-015, 022013-4-016

### DECLARATION OF COVENANTS

THIS DECLARATION OF COVENANTS is entered into this 12 day of December, 2002, by (b) (6)

TRUSTEE OF THE REVOCABLE TRUST OF (b) (6)

dated April 9, 1996, hereinafter referred to as "Declarant."

WITNESSETH:

#### RECITALS

A. Declarant is the fee owner of certain real property and improvements located at 4030 South Tacoma Way, Tacoma, Washington, and legally described as follows:

Parcel A

That portion of the following described property lying west of South Washington Street:

Beginning at the intersection of the westerly line of South Tacoma Way with the south line of the north half of the northeast quarter of the southeast quarter

EN12000-12999At3321\13321-00002\ADREEN#HTMIAKOD2(,poc

of Section 13, Township 20 North, Range 2 East of the Willamette Meridian; thence northerly along said west line of South Tacoma Way, 130.46 feet; thence west 74.42 feet; thence south 130 feet to the south line of the north half of the northeast quarter of the southeast quarter; thence east 85.98 feet to the place of beginning.

Except that portion thereof condemned for Washington Street.

#### Parcel B:

Beginning 262.94 feet northerly along the easterly line of the right of way of the Northern Pacific Railway Company from the intersection of said right of way with the south line of the north half of the northeast quarter of the southeast quarter of Section 13, Township 20 North, Range 2 East of the Willamette Meridian; thence northerly on said right of way 100.59 feet; thence east 435.91 feet to the westerly line of South Tacoma Way, before widening; thence southerly along said line 100.49 feet; thence west 434.74 feet to the point of beginning.

Except that portion taken by the City of Tacoma for widening of South Tacoma Way in Pierce County Superior Court Cause No. 74919.

#### Parcel C:

Beginning at a point 262.94 feet northerly along the easterly line of the right of way of the Northern Pacific Railway Company from the intersection of said right of way with the south line of the north half of the northeast quarter of the southeast quarter of Section 13, Township 20 North, Range 2 East of the Willamette Meridian; thence East 434.74 feet to the westerly line of South Tacoma Way, before widening; thence southerly along said line 133.13 feet; thence west 448.42 feet to the east line of said right of way; thence northerly along said right of way 132.94 feet to the point of beginning.

Except that portion thereof as appropriated by the City of Tacoma under Pierce County Superior Court Cause No. 63018.

All parcels situate in the City of Tacoma, County of Piece, State of Washington.

### (the "Property").

B. It has been discovered that groundwater flowing beneath the surface of the Property and the adjoining property contains chlorinated hydrocarbons coming from one or more sites located away from the Property.

- C. The Declarant has been informed and believes that the groundwater beneath the surface of the Property will be naturally cleansed over a period of time and no further remedial action will be necessary.
- D. The Declarant has voluntarily notified the Department of Ecology of the groundwater problem and has filed all reports and taken all other administrative action required by the Department of Ecology with regard to the soils on the Property and the groundwater located beneath the surface of the Property.
- E. In compliance with the requirements of the Department of Ecology and WAC 173-340-440, the Declarant desires to subject the Property to the following covenants:

### **COVENANTS**

1. <u>Grant of Covenants</u>. Declarant, for himself, and for his heirs, successors and assigns, does hereby subject the Property to these covenants, effective upon recording with the Pierce County Auditor.

#### Covenant Provisions.

- (a) Any taking of groundwater from the Property or any activities upon the Property that may interfere with the clean-up action, operation and maintenance, monitoring, or other measures necessary to assure the integrity of any clean-up action and continued protection of human health and environment are prohibited;
- (b) Any activities that may result in the release of the groundwater from the Property are prohibited;
- (c) Before any interest in the Property may be conveyed to another, the owner of the Property must first give the Department of Boology of the State of Washington thirty (30) days prior written notice. No conveyance of title, easement, lease or other interest in the Property shall be consummated by the Property owner without adequate and complete provision for compliance with WAC 173-340-440, as it may be amended from time to time;
- (d) The owner of the Property shall at all times restrict leases to uses and activities consistent with this Declaration of Covenants, and shall notify all lessees of the restrictions on the use of the Property;
- (e) Notice of these covenants must be included in any instrument conveying any interest in all or any portion of the Property;
- (f) The owner of the Property must notify the Department of Ecology of the State of Washington and receive its approval for any use of the Property in a manner that is

inconsistent with these covenants. In the event the Department of Ecology, after public notice and comment, approves the proposed changes, these covenants shall be amended to reflect the change; and

- (g) The Department of Ecology of the State of Washington and its designated representatives shall have the right, at reasonable times and upon reasonable notice, to enter the Property for the purpose of evaluating compliance, including the right to take samples, inspect any remedial actions taken on the Property, and to inspect records.
- Notification of Local Government. Prior to these covenants being executed and recorded, the Declarant will notify the Tacoma-Pierce County Health Department and seek its comment.
- 4. Removal of Covenants. These covenants may not be removed from the Property without the prior written approval of the Department of Ecology of the State of Washington.

IN WITNESS WHEREOF, the Declarant has executed this Declaration of Covenants on the day and year first above written.

BRIAN M. WILSON, Trustee of the Revocable Trust of (b) (6)

4

06 D	TEACH STAND				
STATE OF WASHINGTON	. )	di	'02	DEC 26	<b>110 :22</b>
County of Pierce	5	88,	41.	, - · · · · · · · · · · · · · · · · · ·	

On this day personally appeared before me (b) (6) to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and deed, for the uses and purposes therein mentioned.

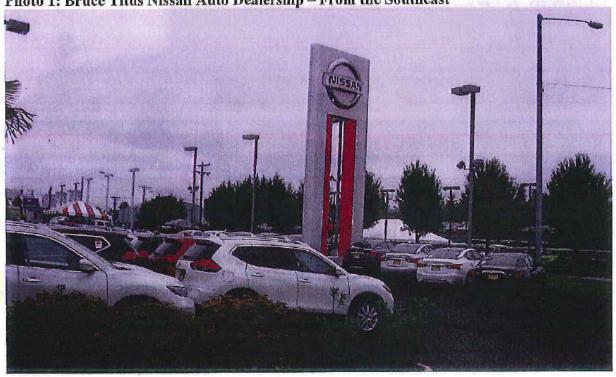
GIVEN under my hand and official seal this 13. day of December, 2002.

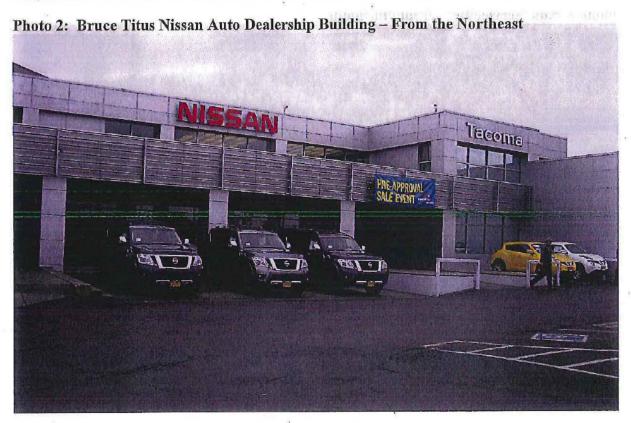
For recording in the state of Washington, the Notarial Soul must be fully legible and cannot intrude into document margins. Please affix seal in the space provided.



# 6.7 Photo log

Photo 1: Bruce Titus Nissan Auto Dealership - From the Southeast





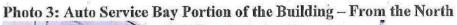




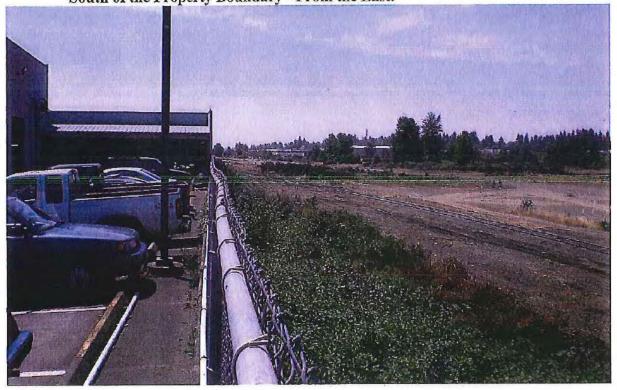




Photo 5: Auto Service Bay - From the North



Photo 6: Southern Property Boundary and South Tacoma Field Superfund Site to the South of the Property Boundary - From the East.





# STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

October 23, 2012

Mr. Bruce Titus 4030 South Tacoma Way Tacoma, WA 9898411

Re: Notice of Periodic Review Conducted at the following Hazardous Waste Site:

Name: Bruce Titus Nissan.

Address: 4030 South Tacoma Way, Tacoma, Washington 98411.

• Facility/Site Number: 41363269.

Dear Mr. Titus:

Under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, which governs the cleanup of hazardous waste sites in Washington State, the Department of Ecology (Ecology) must conduct a periodic review of all sites with institutional controls and Environmental Covenants every five years. This letter serves to inform you that a periodic review has been conducted at the Bruce Titus Nissan Site.

The periodic review process includes the following steps:

- Confirmation that the Environmental Covenant is still active and recorded with the Title to the property.
- A review of any monitoring data collected since the cleanup was completed or since the last review was conducted.
- A Site visit to confirm the institutional controls and conditions of the Environmental Covenant are being followed.
- A 30-day public comment period on the draft periodic review report.

Based on the information collected during this periodic review, the Bruce Titus Nissan Site appears to meet the requirements of Chapter 173-340 WAC, and the selected remedy continues to be protective of human health and the environment. The 30-day public comment period on the draft periodic review report was ended on October 22, 2012. We received one public comment from Ronald Coleman of Davies Pearson, P.C. on the draft report. A copy of the public comment and Ecology response are attached for your information. In addition, enclosed is also a copy of the final periodic review report for your information and files.

A periodic review will continue to be required every five years as long as institutional controls and/or an environmental covenant are required to protect human health and the environment. The next periodic review will be due in October 2017.

If you have any questions regarding this letter or if you would like additional information regarding the cleanup of hazardous waste sites, please call me at (360) 407-6335. Thank you for your cooperation.

Sincerely,

Panjini Balaraju

Toxics Cleanup Program Southwest Regional Office

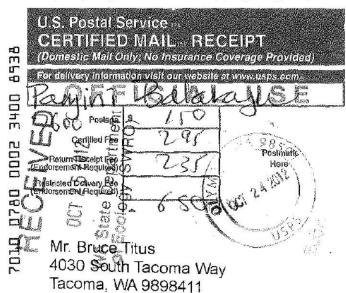
PB/ksc: Bruce Titus Nissan Periodic Review Notice Letter

Enclosure: 2

By certified mail: (7010 0780 0002 3400 8938)

cc: Central Files

COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. D. Is delivery address different from item 1? 1. Article Addressed to: Mr. Bruce Titus 4030 South Tacoma Way 3. Service Type Tacoma, WA 9898411 Certified Mall ☐ Express Mail ☐ Registered Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) 2. Article Number 7010 0780 0002 3400 8938 (Transfer from ser PS Form 3811, February 2004 Domestic Return Receipt Paud WW



SITE BRUCE TITUS NISSAN

FSIDH: 41363269

COUNTY: PLERCE

CITY: TACOMA

Periodic Review Report Mailing.

# Responsiveness Summary Bruce Titus Nissan Site FSID#41363269

Washington State Department of Ecology Southwest Regional Office Toxics Cleanup Program

Site Manager: Panjini Balaraju

Public Involvement contact: Michael Bergman

Ecology received one comment on the draft Periodic (5-year) Review report for the Bruce Titus Nissan Dealership. The comment period ran from September 20 to October 22, 2012. The draft report is online at https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=3481.

Comment #1 – Ronald L. Coleman, Esq., Davies Pearson, P.C., Attorneys at Law (See attached letter).

## **Ecology Response**

Good morning Mr. Coleman,

Thanks for sending me a copy of the Acknowledgement of Declaration of Covenant and your letter of October 3, 2012 informing Ecology regarding the property transaction that occurred sometime in December 2002 between The Recoverable Trust of (b) (6) and BLT Investments L.L.C., a Washington limited liability company, owned by Bruce Titus. Previously Ecology was not aware of this transaction since, Ecology was not informed by the previous property owner, (b) (6) regarding this property transaction.

Based on your information, Ecology will update its records.



920 Fawcett Avenue / PO Box 1657 Tacoma, WA 98401-1657

253-620-1500 | Fax 253-572-3052 www.dpearson.com

Ronald L, Coleman Richard H, Benedetti Peter T. Petrich James R. Tomlinson Monte Bersante Lamont C. Loo\* Benjanin R, Sligar Sok-Khleng K. Lim\* Brion M. King\* Csilio Muhl Michael T. Smith Christopher J. Morston Rebecca M. Larson Susan L. Caulkins Andrew R. Buffington Mark D. Nelson Benjamin T. Zlelinski Ingrid L.D. McLeod Of Counsel
Carol J. Cooper
Bertil F. Johnson
John C. Kouklis
Anne G. Peck
Retired
Cloude M. Pearson
Dennis G. Seinfeld
(1940-2005)

ALSO LICENSED IN OREGON

October 3, 2012

### SENT VIA EMAIL TO PBAL461@ECY, WA.GOV AND CONFIRMED BY MAIL

Department of Ecology Attn: Panjini Balaraju State of Washington P.O. Box 47600 Olympia, WA 98504-7600

Re: Site Name: Bruce Titus Nissan Dealership

Site Address: 4030 South Tacoma Way, Tacoma, Washington

Owner: BLT Investments, L.L.C. Facility/Site ID: 41363269
Our File No. 12484-1

Dear Mr. Balaraju:

I have prepared and I am providing to you an original document entitled Acknowledgement of Restrictive Covenants. As you may or may not recall, the Declaration of Covenants was filed with regard to the property at issue on December 13, 2002 at a time when it was owned by (b) (6) as Trustee of The Revocable Trust of (b) (6) Subsequently, the property was sold to BLT Investments, L.L.C., a Washington limited liability company, owned by Bruce Titus. Mr. Titus was not aware of the fact that (b) (6) had not notified the Department of Ecology of the transfer.

We have prepared the enclosed Acknowledgement so the Department of Ecology's records are clear as to Mr. Titus' acknowledgement of the existence of the Declaration of Covenants, as well as to advise the Department of the transfer of the property to BLT Investments, L.L.C. and to advise the Department that the current tenant is Universal Auto Group V, Inc. The use of the property has not changed and it continues to be used for the sales and service of motor vehicles.

With this information, I trust that the Department of Ecology's records will now be made current.

### WHEN RECORDED RETURN TO:

Ronald L. Coleman, Esq. DAVIES PEARSON, P.C. P.O. BOX 1657 TACOMA, WA 98401

#### RECORDING SUMMARY

Document Title:

Abbreviated Legal Description:

Acknowledgement of Declaration of Covenants

A portion of the NE 1/2 of the SE 1/4 of S13, T20

N, R2E of W.M.

Assessor's Tax Parcel Numbers:

022013-4-014, 022013-4-015; 022013-4-016

#### ACKNOWLEDGEMENT

This Acknowledgement of Declaration of Covenants is entered into this 21<sup>st</sup> day of September 2012, by BLT Investments, L.L.C., a Washington limited liability company, hereinafter referred to as "BLT."

#### RECITALS

- A. This Acknowledgement is with regard to that certain Declaration of Covenants dated December 13, 2002 by (b) (6)

  Trustee of the Revocable Trust of (b) (6)

  dated April 9, 1996, hereinafter referred to as "Declarant." The Declaration of Covenants was recorded on December 13, 2002 under Pierce County Auditor's Recording Number 200212130597.
- B. Declarant transferred its interest in the property described in the Declaration of Covenants to BLT on April 30, 2003.
- C. BLT leased the property to Tacoma Subaru, Inc. on May 1, 2003.
- D. BLT subsequently leased the property to Universal Auto Group V, Inc. on December 16, 2011.

#### COVENANTS

- 1. BLT for itself and its successors and assigns hereby acknowledges and agrees to be bound by the terms of the Declaration of Covenants identified above.
- BLT hereby provides notice that it purchased the property from Declarant on April 30, 2003.



# PERIODIC REVIEW REPORT FINAL

Bruce Titus Nissan Dealers Facility Site ID#: 41363269

4030 South Tacoma Way Tacoma, Washington 98411

**Southwest Region Office** 

TOXICS CLEANUP PROGRAM

October 2012

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# 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup conditions and monitoring data to ensure that human health and the environment are being protected at the Bruce Titus Nissan Property (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP). The cleanup actions resulted in concentrations of trichloroethylene (TCE) in groundwater exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for groundwater are established under WAC 173-340-720. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action.
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- (c) Or, as resources permit, whenever the department issues a no further action (NFA) opinion.
- (d) And one of the following conditions exists:
  - 1. Institutional controls or financial assurance are required as part of the cleanup.
  - 2. Where the cleanup level is based on a practical quantitation limit.
  - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

# 2.0 SUMMARY OF SITE CONDITIONS

# 2.1 Site History

The Bruce Titus Nissan facility is located at 4030 South Tacoma Way in Tacoma in Pierce County, Washington (Vicinity Map - Appendix 6.1). The Bruce Titus Nissan dealership was constructed in 1989 and continues to operate as an automobile dealership and service center (Site Plan – Appendix 6.2).

The subject property is bordered to the north by a veterinary clinic and additional parking for the subject property followed by a vacant used car lot; to the west by railroad tracks followed by undeveloped land; to the south by a machine design and manufacturing facility; to the southeast by a used car lot; and to the east by South Tacoma Way followed by a new and used car dealership.

# 2.2 Site Investigations and Cleanup

A Phase I Environmental Site Assessment (ESA) was completed by SECOR for the Site in 2001. The ESA revealed several potential environmental impacts to the property, including poor housekeeping, and the unknown integrity of hydraulic hoists, a trench drain, and an oil water separator (OWS).

In September 2001, SECOR completed a Phase II subsurface investigation at the Site. This investigation included the advancement of eight soil borings to collect soil and groundwater samples. Borings were advanced to a maximum depth of 50 feet below ground surface (bgs). TCE was detected in borings B-4 and B-5 at concentrations of 15 micrograms per liter ( $\mu$ g/L) and 49  $\mu$ g/L respectively. The MTCA Method A cleanup level for TCE is 5  $\mu$ g/L. Methylene chloride was also detected in B-5 at 5.9  $\mu$ g/L, which exceeded the MTCA Method A cleanup level of 5  $\mu$ g/L. TCE was not detected in soil samples from any of the soil borings at concentrations exceeding MTCA Method A cleanup levels.

In December 2001, SECOR installed four monitoring wells at the Site. Soil samples were collected during the well installation. Analysis of soil samples did not indicate the presence of any contamination at concentrations exceeding MTCA Method A cleanup levels. Several contaminants were detected in groundwater at concentrations exceeding MTCA Method A or Method B cleanup levels, including TCE, Chloroform, 1,2 Dichloropropane and Bromodichlormethane.

In 2002, Stemen Environmental, Inc. advanced nine additional soil borings at the Site. Nine soils samples were collected from the borings and submitted for laboratory analysis of volatile organic compounds (VOCs). No VOCs were detected in any of the samples at concentrations exceeding MTCA Method A or Method B cleanup levels. Groundwater samples were also collected from the four permanent monitoring wells and analyzed for VOCs. TCE was detected in all four wells at concentrations exceeding MTCA Method A cleanup levels. Groundwater monitoring/sampling data for TCE is presented in Table 1. Detailed groundwater monitoring

data is presented as Appendix 6.4. Soil borings and groundwater monitoring/sampling locations are included as Appendix 6.2 and 6.3.

TABLE 1: Groundwater Monitoring/Sampling Data

Analyte	Concentration Range (µg/L)	Cleanup Level (µg/L)
TCE	49 – 120 <sup>a</sup>	5

### a: above cleanup level

Stemen Environmental suggested that groundwater contamination resulted from the adjacent South Tacoma Field property (Superfund site) located south of the Site. VOC contamination has been confirmed in soil and groundwater at this adjacent property. A comfort letter from the United States Environmental Protection Agency (USEPA) was obtained to substantiate the above assertion. A copy of USEPA's is included as Appendix 6.5.

### 2.3 Restrictive Covenant

Due to the probable off-site source of groundwater contamination, it was determined that the Site was eligible for a NFA determination if a RC was recorded for the property. A RC was recorded for the Site on December 13, 2002 which imposed the following limitations:

- Any taking of groundwater from the Property or any activities upon the Property that may
  interfere with the clean-up action, operation and maintenance, monitoring, or other
  measures necessary to assure the integrity of any cleanup action and continued protection
  of human health and the environment are prohibited.
- 2. Any activity that may result in the release of groundwater from the property is prohibited.
- 3. The owner or successor owner of the Site must give written notice of intent to convey any interest in the Site.
- 4. The owner must restrict leases to uses and activities consistent with the RC.
- 5. Notice of these covenants must be included in any instrument conveying any interest in all or any portion of the Property.
- 6. The owner must obtain approval from Ecology prior to any use of the property that is inconsistent with the terms of the Covenant.
- 7. The owner or successor owner shall grant Ecology the right to enter the site at reasonable times.
- 8. The owner or successor owner reserves the right to remove this Covenant with Ecology's approval.

The RC is available as Appendix 6.6.

Following the remedial actions, an interim NFA determination letter for soils was issued for the Site on September 25, 2002. This letter stated that a final NFA determination could be issued once it is shown that groundwater beneath the Site is no longer contaminated. To show that

groundwater beneath the Site is not longer contaminated, the groundwater concentration of VOCs must be clean for four consecutive quarters.

## 3.0 PERIODIC REVIEW

## 3.1 Effectiveness of completed cleanup actions

Based upon the Site visit conducted on August 15, 2012, the Site continues to operate as an automobile dealership. There have not been any attempts to withdraw or use groundwater from the Site. The asphalt and building structures appears in satisfactory condition and no repair, maintenance, or contingency actions have been required. A photo log is available as Appendix 6.7.

The RC for the Site was recorded and is in place. This RC prohibits activities that will result in the release of contaminants at the Site without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This RC serves to ensure the long term integrity of the cap.

Groundwater with TCE concentration higher than the Site specific cleanup level is still present at the Site. The RC for the property will ensure that the groundwater extraction and use remains restricted at the Site.

# 3.2 New scientific information for individual hazardous substances for mixtures present at the Site

There is no new relevant scientific information for the contaminants related to the Site.

# 3.3 New applicable state and federal laws for hazardous substances present at the Site

Cleanup levels have not changed for contaminants of concern at the Site since the interim no further action determination was issued in 2002.

# 3.4 Current and projected site use

The Site is currently used for commercial purposes. There have been no changes in current or projected future Site or resource uses.

# 3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

# 3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below selected site cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

# 4.0 CONCLUSIONS

The following conclusions have been made as a result of this periodic review:

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Groundwater cleanup levels have not been met at the standard point of compliance for the Site; however, the cleanup action has been determined to comply with cleanup standards since the long-term integrity of the isolation or containment system is ensured, and the requirements of WAC 173-340-740 (6)(f) for isolation or containment technologies are being met.
- The RC for the property is in place and continues to be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, the Department of Ecology has determined that the requirements of the RC continue to be met to be protective of human health and the environment. No additional cleanup actions are required by the property owner at this time. It is the property owner's responsibility to continue to inspect the Site to assure that the integrity of the surface cover is maintained.

### 4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

# 5.0 REFERENCES

SECOR, Phase II Subsurface Investigation. October 11, 2001.

SECOR, Additional Environmental Investigation Report. December 21, 2001.

Stemen Environmental, Inc. Additional Environmental Investigations Report. August 21, 2002.

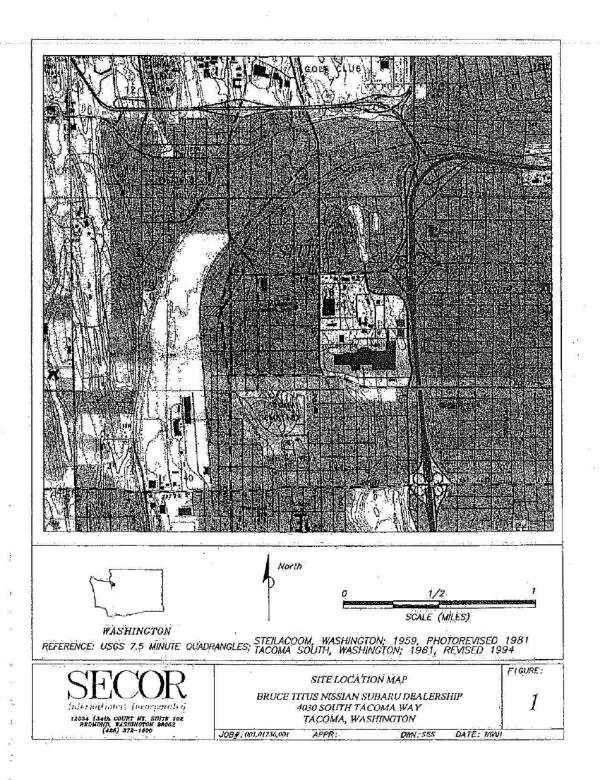
Stemen Environmental, Inc. Groundwater Monitoring Report. August 21, 2002.

Ecology, 2002, Restrictive Covenant.

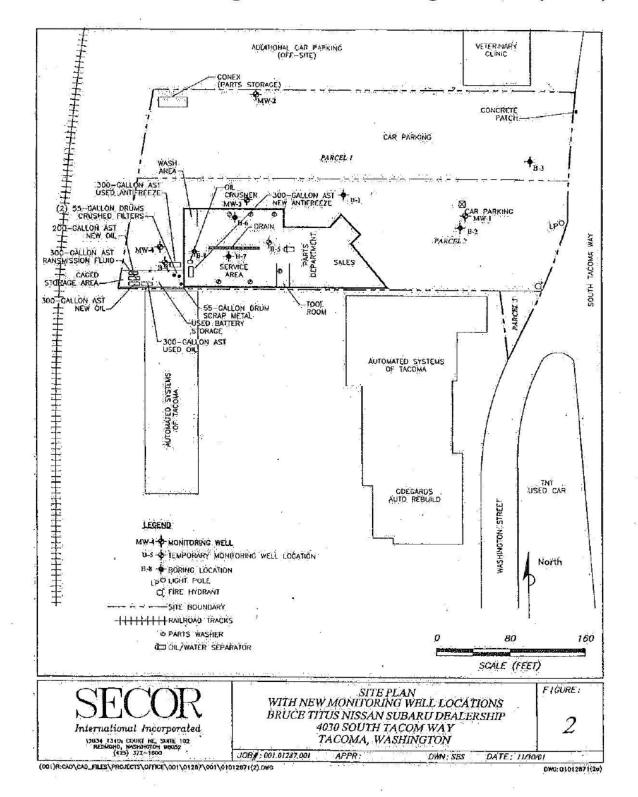
Ecology, Site Visit, August 15, 2012.

# 6.0 APPENDICES

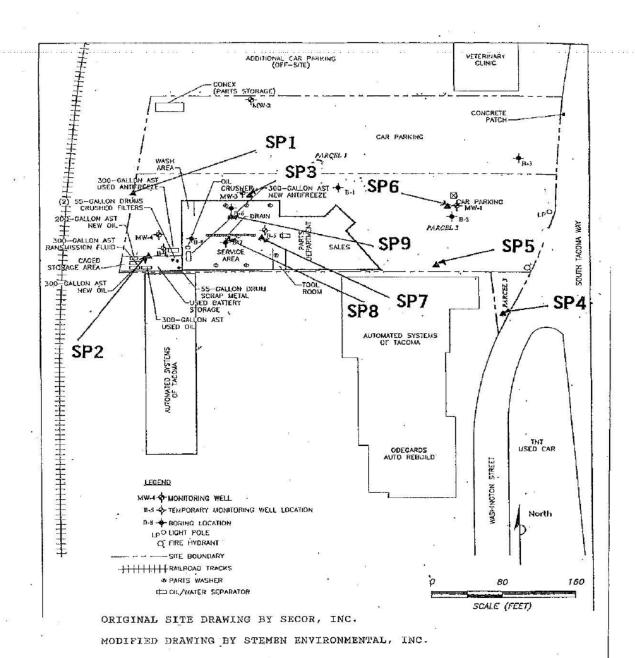
# 6.1 Vicinity Map



# 6.2 Site Plan: Monitoring Wells and Soil Boring Locations (9/2001)



# 6.3 Soil Sampling Locations (August 2002)



Groundwater Monitoring/Sampling

Results

# Table 1 Grandwater Analytical Results Bruce Titus Nurso Subaru 4010 South Tacons Was Tacons, Washington SEGOR PN; 001,01188,001

S	Sample	Depth to	BTZX Compounds			Total Pet	reieum B	ydrocarbon;*		Metaja Arsenic Sarium Codmium Chromium Lead Mercury Seleatum Silver									
ample ID			Benzeat		Ethylbenzene	Xylenes	Gusoline	Diesel	Heavy Oil	Arsenic	9arium	Çedmium.	Chromium	Lead	Mercury	Selentum	Silver	PCBs	VOC.
8.49	W19/01	(3.90	. 240	, ND	HD	ND	ND	ND	90	40 .	750	NO	149	21	סא	8.7	HD.	ND_	15 <sup>rex</sup>
9-5W	p- 9/20/01	45.00	ND .	1410	ND.	11	'ND	нр	NO.	CIO	1,300	ši	451	116	1,4	10	NO		47 1 2 9 1 0 21 1
B-1W	7/26/05	G1.00	-			2	- 1	-											
TCA Made		éwner Cleanup		1000	700	1090	1,090*	500	soio	5	540**	3	50	15	2	10:2	40**	9,1	515***

#### Notes

All data reported in micrograms per liter (ug/L).

\* Benzene, ethylbenzene, teluene, and xylenes by Washingon State Department of Ecology (Beology) Method NWTPH-CRIEX

\* - Total petroleum hydrocarbons in the diesel-range and motor oil-range analyzed using Ecology Method NWTPH-Dr.

Total petroleum hydrocarbons in the gasoline-range analyzed using Ecology Method NWTPH-C.

2- Total and dissolved metals by EFA Series \$000/7000. Grey highlighted boxer are dissolved results. B-SW with analyzed for dissolved netals for comparative purposes.

"= Palychlorinated biphenyls by EPA Method 1082.

1 = Volatile organic compounds analyzed by EPA Method 1250B. All analyzes either non-detect or below the MTCA Cleanup Levels except for those present

TEE - Tricklorosthene or tricklorosthylene detected at 15 µg/L

A = 49 mg/L TCE, 5.9 mg/L methylene chloride, 0.27 mg/L athyl betweene, 0.83 mg/L xylene.

" - Cleanup level for gasoline when no boutene present

\*\* No Method A cleanup value established, current Mathod B formula value presented

\*\*\* - Circump Level IIslad for TCB and methylene chloride. Other VCCs detected in B-5W were below for MTCA Method Cleanup Level.

NA - New Method B formula values not yet available from Boology

NEW - New defended the sear laboration detection (imid

Table 3

Groundwater Analytical Results-Well Installation Bruce Hites Nissan Subaru 4030 South Tacona Way Tacoma, Washington SECON PN: 001.01287.001

10000	St 5	-3000000	Yalatile Organic Compounds'										
Monitoring Well	Date	Depth to water (feet bgs]	(cls) 1,2-Dickloroethene	Chloreform	TCE	Bengens	1,2 Dichleropropane	Bromodlehlaramethane	Toluene	Ethylbanzane	Xylenes		
. MW-i	(1/14/01	41,01	1.0	0.85		ND	ND	ND	0.25	CM	ND		
MW-1	11/11/01	42361	, ND	0,20		ND.		ND.	סא	ND_	NO		
мw-з	11/21/01	43,05	2.1			ND.	, ND		. 1.1	0.51	2.15		
PC#-4	11/2[/01	12,20	מא		4120		, ND		2.0	4,52	138		
ATCA Method A C	roundwater	f Cjeantip Levels	, мк	NA.	5	Ś	М	NA.	1,000	700	1,000		
MTCA Method 8 (	Groundwater	Cleanup Levels	72.0	7,17	1.91	0.795	0,643	0.706	1,500	100	16,000		

#### Notes

Shaded results indicate a detection above a cleanup level.

All data reported in micrograms per liter (µg/L).

\* Wolstile organic compounds analyzed by EPA Method 8260B. All analytes non-detect except for those presented.

<sup>1</sup> TCE = Trichiarpethene or trichiarpethylene

# 6.5 United States Environmental Protection Agency Comfort Letter



DEPT OF ECOLOGY/SMPC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10 '03 rg

103 FFB -3 -P1:28

1200 Sixth Avenue Seattle, Washington 98101

JAN 28 2003

Reply To Atta Of: ECL-117

Paul Sternen Stemen Environmental, Inc. P. O. Box 3664 Lacey, WA 98509-3644

RB: Development of Property Adjacent to South Tocoma Fields Operable Unit (STF OU) of Commencement Buy/Nearshore Tideflats Superfund Site, Tocoma, Washington

Dear Mr. Stemen:

I am writing in response to your August 23, 2002 letter, and the Environmental Site Assessment information you provided for the property at 4030 South Tacoma Way which is adjacent to the South Tacoma Fields operable unit of the Commencement Bay (Nearshore Tideflats Superfund Site in Tacoma. This neighboring property, currently owned by (b) (6)..., is currently the site of the Bruce Titus Nissan Dealership and includes tax parcels R0200134014, R0220134015, and R0220134016 ("Titus Property"). Our response is based on the facts presently known to the U.S. Environmental Protection Agency (EPA) and the information you provided.

EPA's Policy Toward Owners of Property Containing Contaminated Aquifers (the Policy) provides that EPA, in an exercise of its enforcement discretion, will not take an enforcement action against parties who meet the conditions and criteria described in the Policy. Based on the available information, it appears likely that contamination observed in groundwater at the Titus Property migrated from the STF OU. EPA believes that the Policy applies to your situation. I am enclosing a copy of the policy for your review.

If you have any questions about the above information, please call Kris Flint, BPA's Remedial Project Manager for the STF OU, at (206) 553-8155.

Sincerely,

Michael F. Gearheard, Director Environmental Clemnp Office

Enclosure

Chuck Cline, Ecology/SWRO Bruce Tims

(b) (6)

Chuck- Call me if you have any questions. Shanks for your help with this! I Kros

Printed on Recycled Paper

#### 6.6 Restrictive Covenant

After Recording Return To:

102 BFC 26. 120 122

(b) (6)

(b) (6)

Tacoma, WA 98407

#### RECORDING SUMMARY

Document Title:

Declaration of Covenants

Grantor:

Trustee

Grantee:

(b) (6) Trustee

Reference number of document assigned or

N/A

released:

A portion of the NB 1/4 of the SE 1/4 of S13,

Abbreviated Legal Description:

T20 N, R2E of W.M. (Full Legal Description

on pp. 1 & 2)

Assessor's Tax Parcel Number:

022013-4-014, 022013-4-015, 022013-4-016

#### DECLARATION OF COVENANTS

THIS DECLARATION OF COVENANTS is entered into this 13 day of December, (b) (6), TRUSTEE OF THE REVOCABLE TRUST OF (b) (6) dated April 9, 1996, hereinafter réferred to as "Declarant."

WITNESSETH:

#### RECITALS

Declarant is the fee owner of certain real property and improvements located at 4030 South Tacoma Way, Tacoma, Washington, and legally described as follows:

That portion of the following described property lying west of South Washington Street:

Beginning at the intersection of the westerly line of South Tacoma Way with the south line of the north half of the northeast quarter of the southeast quarter

PA\$3000-13999(13321\J3321-00002\AGREZHRHTEVAKOO21.00C

of Section 13, Township 20 North, Range 2 Bast of the Willamette Meridian; thence northerly along said west line of South Tacoma Way, 130.46 feet, thence west 74.42 feet; thence south 130 feet to the south line of the north half of the northeast quarter of the southeast quarter; thence east 85.98 feet to the place of beginning.

Except that portion thereof condemned for Washington Street.

#### Parcel B

Beginning 262.94 feet northerly along the easterly line of the right of way of the Northern Pacific Railway Company from the intersection of said right of way with the south line of the north half of the northeast quarter of the southeast quarter of Section 13, Township 20 North, Range 2 Bast of the Willamette Meridian; thence northerly on said right of way 100.59 feet; thence east 435.91 feet to the westerly line of South Tacoma Way, before widening; thence southerly along said line 100.49 feet, thence west 434.74 feet to the point of beginning.

Except that portion taken by the City of Tacoma for widening of South Tacoma Way in Pierce County Superior Court Cause No. 74919.

#### Parcel C:

Beginning at a point 262.94 feet northerly along the easterly line of the right of way of the Northern Pacific Railway Company from the intersection of said right of way with the south line of the north half of the northeast quarter of the southeast quarter of Section 13, Township 20 North, Range 2 East of the Willamette Meridian; thence East 434.74 feet to the westerly line of South Tacoma Way, before widening; thence southerly along said line 133.13 feet; thence west 448.42 feet to the east line of said right of way; thence northerly along said right of way 132.94 feet to the point of beginning.

Except that portion thereof as appropriated by the City of Tacoma under Pierce County Superior Court Cause No. 63018.

All parcels situate in the City of Tacoma, County of Piece, State of Washington.

(the 'Property").

B. It has been discovered that groundwater flowing beneath the surface of the Property and the adjoining property contains chlorinated hydrocarbons coming from one of more sites located away from the Property.

- C. The Declarant has been informed and believes that the groundwater beneath the surface of the Property will be naturally cleansed over a period of time and no further remedial action will be necessary.
- D. The Declarant has voluntarily notified the Department of Ecology of the groundwater problem and has filed all reports and taken all other administrative action required by the Department of Ecology with regard to the soils on the Property and the groundwater located beneath the surface of the Property.
- B. In compliance with the requirements of the Department of Ecology and WAC 173-340-440, the Declarant desires to subject the Property to the following covenants:

### COVENANTS

1. Grant of Covenants. Declarant, for himself, and for his heirs, successors and assigns, does hereby subject the Property to these covenants, effective upon recording with the Pierce County Auditor.

#### Covenant Provisions.

ï

- (a) Any taking of groundwater from the Property or any activities upon the Property that may interfere with the clean-up action, operation and maintenance, monitoring, or other measures necessary to assure the integrity of any clean-up action and continued protection of human health and environment are prohibited;
- (b) Any activities that may result in the telease of the groundwater from the Property are prohibited;
- (c) Before any interest in the Property may be conveyed to another, the owner of the Property must first give the Department of Ecology of the State of Washington thirty (30) days prior written notice. No conveyance of title, easement, lease or other interest in the Property shall be consummated by the Property owner without adequate and complete provision for compliance with WAC 173-340-440, as it may be amended from time to time;
- (d) The owner of the Property shall at all times restrict leases to uses and activities consistent with this Declaration of Covenants, and shall notify all lessees of the restrictions on the use of the Property;
- (e) Notice of these covenants must be included in any instrument convoying any interest in all or any portion of the Property;
- (f) The owner of the Property must notify the Department of Ecology of the State of Washington and receive its approval for any use of the Property in a manner that is

inconsistent with these covenants. In the event the Department of Boology, after public notice and comment, approves the proposed changes, these covenants shall be amended to reflect the change; and

- (g) The Department of Ecology of the State of Washington and its designated representatives shall have the right, at reasonable times and upon reasonable notice, to enter the Property for the purpose of evaluating compliance, including the right to take samples, inspect any remedial actions taken on the Property, and to inspect records.
- 3. <u>Notification of Local Government</u>. Prior to these covenants being executed and recorded, the Declarant will notify the Tacoma-Pierce County Health Department and seek its comment.
- 4. Removal of Covenants. These covenants may not be removed from the Property without the prior written approval of the Department of Ecology of the State of Washington.

IN WITNESS WHEREOF, the Declarant has executed this Declaration of Covenants on the day and year first above written. (b) (6)

(b) (6) Trustee of the Revocable Trust of (b) (6)

THE SECOND CANDO

STATE OF WASHINGTON

SS.

'02 DEC 25 40 :22

County of Pierce

On this day personally appeared before me (b) (6) to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and deed, for the uses and purposes therein mentioned.

GIVEN under my hand and official seal this 13 day of December, 2002.

For recording in the state of Washington, the Notarial Scal must be fully legible and cannot intrude into document margins. Please affix seal in the space provided.

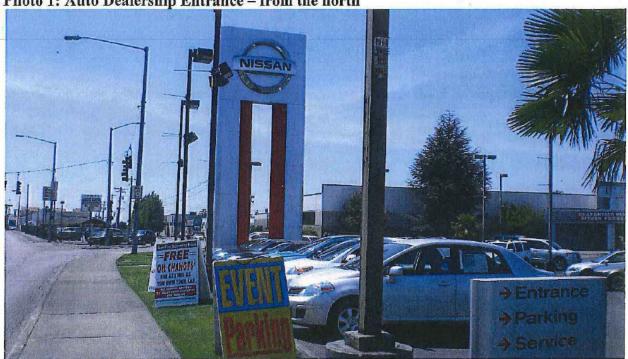
Marium Wetch MARIUM Wetch Print Name

NOTARY PUBLIC in and for the State of Washington, residing at 100 ma
My Commission expires: 06-15-06



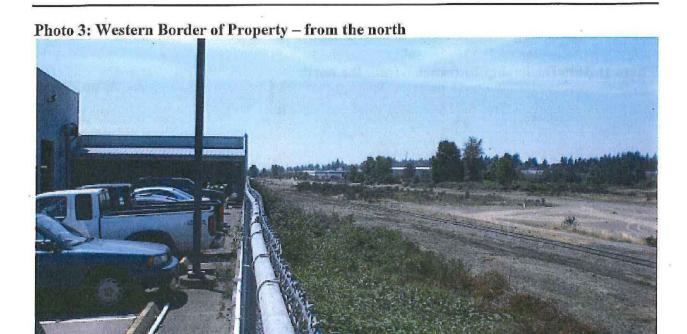
# 6.7 Photo log

Photo 1: Auto Dealership Entrance - from the north













#### Balaraju, Panjini (ECY)

From:

Balaraju, Panjini (ECY)

Sent:

Monday, October 22, 2012 12:31 PM

To:

'Joanne R. Kemper'

Cc:

Ronald L. Coleman; Bruce Titus (me@brucetitus.com); Bergman, Michael (ECY)

Subject:

RE: Bruce Titus Nissan Dealership (Facility/Site ID 41363269)

Good morning Mr. Coleman,

Thanks for sending me a copy of the Acknowledgement of Declaration of Covenant and your letter of October 3, 2012 informing Ecology regarding the property transaction that occurred sometime in December 2002 between The Recoverable Trust of(b) (6) and BLT Investments L.L.C., a Washington limited liability company, owned by Bruce Titus. Previously Ecology was not aware of this transaction since, Ecology was not informed by the previous property owner, (b) (6) regarding this property transaction.

Based on your information, Ecology will update its records.

If you have any questions, please call me at (360) 407-6335 or send me an e-mail at Panjini.balaraju@ecy.wa.gov

Panjini Balaraju.

From: Joanne R. Kemper [mailto:jkemper@dpearson.com]

Sent: Wednesday, October 03, 2012 1:34 PM

To: Balaraju, Panjini (ECY) Cc: Ronald L. Coleman

Subject: Bruce Titus Nissan Dealership (Facility/Site ID 41363269)

MESSAGE FROM RON COLEMAN: (rcoleman@dpearson.com)

Please see my letter and enclosure attached. Thank you.

Ronald L. Coleman

Direct 253-238-5129 - rcoleman@dpearson.com

#### Davies Pearson, P.C.

ATTORNEYS AT LAW 920 Fawcett Avenue / PO Box 1657, Tacoma, WA 98401 253-620-1500 | Fax 253-238-5158 | www.dpearson.com

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920 Fawcett Avenue / PO Box 1657 Tacoma, WA 98401-1657

253-620-1500 |Fax 253-572-8052 www.dpearson.com

Ronald L. Coleman Richard H. Benedetti Peter T. Petrich James R. Tamlinson Monte Bersante Lamont C. Loo\* Benjamin R. Sligar Sok-Khleng K. Lim\* Brian M. Kina\* Csilia Muhl Michael T., Smith Christopher J. Marston Rebecca M. Larson Susan L. Caulkins Andrew R. Buffington Mark D. Nelson Benjamin T. Zielinski Ingrid L.D. McLead

Of Counsel Carol J. Cooper Bertil F. Johnson John C. Kouklis Anne G. Peck

Retired Claude M. Pearson Dennis G. Seinfeld

(1940-2005)

ALSO LICENSED IN OREGON

October 3, 2012

#### SENT VIA EMAIL TO PBAL461@ECY,WA.GOV AND CONFIRMED BY MAIL

Department of Ecology Attn: Panjini Balaraju State of Washington P.O. Box 47600 Olympia, WA 98504-7600

Re: Site Name: Bruce Titus Nissan Dealership

Site Address: 4030 South Tacoma Way, Tacoma, Washington

Owner: BLT Investments, L.L.C. Facility/Site ID: 41363269 Our File No. 12484-1

Dear Mr. Balaraju:

I have prepared and I am providing to you an original document entitled Acknowledgement of Restrictive Covenants. As you may or may not recall, the Declaration of Covenants was filed with regard to the property at issue on December 13, 2002 at a time when it was owned by (b) (6) as Trustee of The Revocable Trust of (b) (6) Subsequently, the property was sold to BLT Investments, L.L.C., a Washington limited liability company, owned by Bruce Titus. Mr. Titus was not aware of the fact that (b) (6) had not notified the Department of Ecology of the transfer.

We have prepared the enclosed Acknowledgement so the Department of Ecology's records are clear as to Mr. Titus' acknowledgement of the existence of the Declaration of Covenants, as well as to advise the Department of the transfer of the property to BLT Investments, L.L.C. and to advise the Department that the current tenant is Universal Auto Group V, Inc. The use of the property has not changed and it continues to be used for the sales and service of motor vehicles.

With this information, I trust that the Department of Ecology's records will now be made current.

Department of Ecology
Attn: Panjini Balaraju
October 3, 2012
Page 2

Should you have any additional questions or need any additional information, please do not hesitate to contact me.

Sincerely yours,

DAVIES PEARSON, P.C.

Ronald L. Coleman

RLC/jk Enclosure

cc: Bruce Titus

#### WHEN RECORDED RETURN TO:

Ronald L. Coleman, Esq. DAVIES PEARSON, P.C. P.O. BOX 1657 TACOMA, WA 98401

#### RECORDING SUMMARY

Document Title:

Acknowledgement of Declaration of Covenants

Abbreviated Legal Description:

A portion of the NE ¼ of the SE ¼ of S13, T20

N, R2E of W.M.

Assessor's Tax Parcel Numbers:

022013-4-014, 022013-4-015, 022013-4-016

#### ACKNOWLEDGEMENT

This Acknowledgement of Declaration of Covenants is entered into this 21<sup>st</sup> day of September 2012, by BLT Investments, L.L.C., a Washington limited liability company, hereinafter referred to as "BLT."

#### RECITALS

- A. This Acknowledgement is with regard to that certain Declaration of Covenants dated December 13, 2002 by (b) (6) , Trustee of the Revocable Trust of (b) (6) dated April 9, 1996, hereinafter referred to as "Declarant." The Declaration of Covenants was recorded on December 13, 2002 under Pierce County Auditor's Recording Number 200212130597.
- B. Declarant transferred its interest in the property described in the Declaration of Covenants to BLT on April 30, 2003.
- C. BLT leased the property to Tacoma Subaru, Inc. on May 1, 2003.
- D. BLT subsequently leased the property to Universal Auto Group V, Inc. on December 16, 2011.

#### COVENANTS

- 1. BLT for itself and its successors and assigns hereby acknowledges and agrees to be bound by the terms of the Declaration of Covenants identified above.
- 2. BLT hereby provides notice that it purchased the property from Declarant on April 30, 2003.

- 3. BLT leased the property to Tacoma Subaru, Inc. on May 1, 2003.
- 4. BLT leased the property to Universal Auto Group V, Inc. on December 16, 2011.
- 5. The use of the property has not changed and is the same as it was when it was owned and used by Declarant. The use is as a sales and service facility for motor vehicles.

IN WITNESS WHEREOF, BLT has executed this acknowledgement on the day and year first above written.

BLT INVESTMENTS, L.L.C.

Bruce Titus, Member/Manager

STATE OF WASHINGTON )
) ss.
COUNTY OF PIERCE )

On this \_\_\_\_\_\_\_ day of September 2012, before me, the undersigned, a notary public in and for the State of Washington, duly commissioned and sworn, personally appeared Bruce Titus, to me known to be the Manager of BLT Investments, L.L.C., the Washington limited liability company that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute the said instrument on behalf of the company.

WITNESS my hand and official seal affixed the day and year first above written.

S NOTARY PUBLIC OF WASHING

Print Name: Collagn E Semderal
NOTARY PUBLIC in and for the State of

Washington.

My commission expires:

16 / ed 12 vert 124 vot 2484 (Mine And) At declaration of cevenants doc



920 Fawcett Avenue / PO Box 1657 Tacoma, WA 98401-1657

253-620-1500 | Fax 253-572-3052 www.dpearson.com

Ronald L. Coleman Richard H. Benedetti Peter T. Petrich James R. Tomlinson Monte Bersante Lamont C. Loo\* Benjamin R. Sligar Sok-Khieng K. Lim\* Brian M. King\*

Csilia Muhl Michael T. Smith Christopher J. Marston Rebecca M. Larson Susan L. Caulkins Andrew R. Buffington Mark D. Nelson Benjamin T. Zielinski Ingrid L.D. McLeod

Carol J. Cooper Bertil F. Johnson John C. Kouklis Anne G. Peck **Retired** Claude M. Pearson

Dennis G. Seinfeld

(1940-2005)

Of Counsel

\*ALSO LICENSED IN OREGON

#### RECEIVED

October 3, 2012

OCT 0 4 2012

WA State Department of Ecology (SWRO)

#### SENT VIA EMAIL TO PBAL461@ECY, WA.GOV AND CONFIRMED BY MAIL

Department of Ecology **Attn: Panjini Balaraju** State of Washington P.O. Box 47600 Olympia, WA 98504-7600

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Site Address: 4030 South Tacoma Way, Tacoma, Washington

Owner: BLT Investments, L.L.C.

Facility/Site ID: 41363269

Our File No. 12484-1

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Department of Ecology Attn: Panjini Balaraju October 3, 2012 Page 2

Should you have any additional questions or need any additional information, please do not hesitate to contact me.

Sincerely yours,

DAVIES PEARSON, P.C.

Ronald L. Coleman

RLC/jk Enclosure

cc: Bruce Titus

## RECEIVED

OCT 0 4 2012

WA State Department of Ecology (SWRO)

#### WHEN RECORDED RETURN TO:

Ronald L. Coleman, Esq. DAVIES PEARSON, P.C. P.O. BOX 1657 TACOMA, WA 98401

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Abbreviated Legal Description;

A portion of the NE 1/4 of the SE 1/4 of S13, T20

N, R2E of W.M.

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BLT INVESTMENTS, L.L.C.

Bruce Titus, Member/Manager

STATE OF WASHINGTON COUNTY OF PIERCE )

On this \_ at of September 2012, before me, the undersigned, a notary public in and for the State of Washington, duly commissioned and sworn, personally appeared Bruce Titus, to me known to be the Manager of BLT Investments, L.L.C., the Washington limited liability company that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said company, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute the said instrument on behalf of the company.

WITNESS my hand and official seal affixed the day and year first above written.

Print Name: Ollas & Sondova

NOFARY PUBLIC in and for the State of

Washington.

My commission expires:

jk / s:\12xxx\124xx\12484\f\the

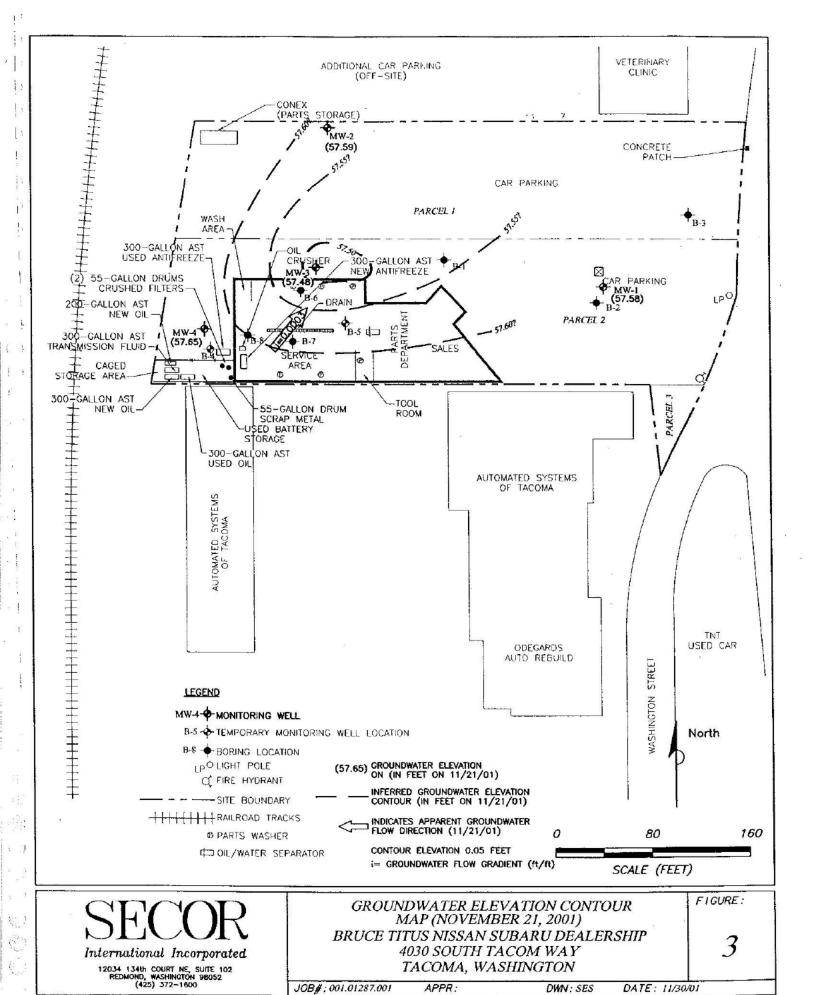
#### COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION A. Signature ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Agent ☐ Addressee Print your name and address on the reverse so that we can return the card to you. B. Received by ( Printed Name) Date of Delivery Attach this card to the back of the mailpiece, or on the front if space permits. 1. Article Addressed to: SEP 2 1 2012 MR ROBERT PANKL State Department TACOMA PUBLIC LIBRARY 1102 TACOMA AVENUE A Certified Mail ☐ Express Mail TACOMA WA 98402 ☐ Registered ☐ Return Receipt for Merchandise ☐ Insured Mail ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) ☐ Yes 2. Article Number 7011 1150 0000 7881 6400 (Transfer from service PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540 COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION A. Signature ■ Complete items 1, 2, and 3. Also complete Agent Agent item 4 if Restricted Delivery is desired. ☐ Addressee Print your name and address on the reverse so that we can return the card to you. C. Date of Delivery Attach this card to the back of the mailpiece, or on the front if space permits. D. Is delivery address different from 1. Article Addressed to: If YES, enter delivery address below: SEP 2 1 2012 MS LESLIE ANN ROSE CITIZENS FOR A HEALTHY BAY WA State Department of Ecology (SWRO) 535 DOCK STREET Sepvice Type Certified Mail **STE 213** ☐ Return Receipt for Merchandise **TACOMA WA 98402** ☐ Registered ☐ Insured Mall ☐ C.O.D. 4. Restricted Delivery? (Extra Fee) ☐ Yes 2. Article Nun 7011 1150 0000 7881 6394 (Transfer fr

Domestic Return Receipt

, PS Form 3811, February 2004

102595-02-M-1540

Attachment D
Historical Titus Site Graphics
and TCE Summary Data



(001)R:CAD\CAD\_FILES\PROJECTS\OFFICE\D01\01287\001\01012871(2).DWG

DWG: 01012871(20)

# Table 1 Summary of Groundwater Depth and Elevation Data Bruce Titus Nissan Subaru 4030 South Tacoma Way Tacoma, Washington

SECOR PN: 001.01287.001

	Depth to Water	Top of Casing	Groundwater
Well Number	(DTW)*	(TOC) Elevation b	Elevation b
	Novemb	er 21, 2001	
MW-1	41.01	98.59	57.58
MW-2	42.41	100.00	57.59
MW-3	43,06	100.54	57.48
MW-4	42.7	100.35	57.65
	Decemb	er 17, 2001	
MW-1	39.96	98.59	58.63
MW-2	41.21	100,00	58,79
MW-3	41.91	100.54	58.63
MW-4	41.52	100.35	58.83

#### Notes:

- a Depth in feet below top of well casing
- b Elevation in feet above mean sea level relative to arbitrary site datum Survey Completed by Diversified Surveying Services, Inc. on 12-10-01.

#### Table 3

#### Groundwater Analytical Results-Well Installation

Bruce Titus Nissan Subaru 4030 South Tacoma Way

Tacoma, Washington

SECOR PN: 001.01287.001

			Volatile Organic Compounds								
Monitoring Well	Date	Depth to water (feet bgs)	(cis) 1,2-Dichloroethene	Chloroform	TCE	Benzene	1,2 Dichloropropane	Bromodichloromethane	Toluene	Ethylbenzene	Xylenes
MW-I	11/21/01	41,01	1.0	0,85	100	ND	ND	ND	0.35	ND	ND
MW-2	11/21/01	42.41	ND	0.20	1. 25	ND	g of	ND	ND	ND	ND
MW-3	11/21/01	43.06	2.1	i=2 \dif-	1000	ND	ND	igner (1)	1.1	0,31	2.15
MW-4	11/21/01	42.70	ND			0,35	ND		2.0	0.52	3.38
CA Method A (	Froundwater	Cleanup Levels	NA NA	NA .	5	5	NA NA	NA	1,000	700	1,000
CA Method B (	Froundwater	Cleanup Levels	72.0	7.17	3.98	0,795	0.643	0.706	1,600	800	16,000

#### Notes:

Shaded results indicate a detection above a cleanup level.

All data reported in micrograms per liter (µg/L).

NA = No Method A or B Cleanup Values Established

ND = Not detected above laboratory method detection limits

<sup>=</sup> Volatile organic compounds analyzed by EPA Method 8260B. All analytes non-detect except for those presented.

<sup>&</sup>lt;sup>2</sup> TCE = Trichloroethene or trichloroethylene

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

page 1 of 2

Date Extracted:

11-28-01

Date Analyzed:

11-28-01

Matrix:

Water

Units:

ug/L (ppb)

Lab ID:

11-171-28

Client ID:

MW-1-W

	Compound Dichlorodifluoromethane Chloromethane Vinyl Chloride Bromomethane Chloroethane	Results ND ND ND ND ND	Flags	PQL 0.20 0.20 0.20 1.0 0.20
	Trichlorofluoromethane	ND		0.20
C	1,1-Dichtoroethene	ND		0.20
	Acetone	ND		5.0
	lodomethane	ND		1.0
	Carbon Disulfide	ND		0.20
	Methylene Chloride	ND		1.0
	(trans) 1,2-Dichloroethene	ND		0.20 0.20
	Methyl t-Butyl Ether 1,1-Dichloroethane	ND ND		0.20
	Vinyl Acetate	ND		1.0
	2,2-Dichloropropane	ND		0.20
	(cis) 1,2-Dichloroethene	1.0		0.20
	2-Butanone	ND		5.0
	Bremochloromethane	ND	2	0.20
	Chloroform	0.85		0.20
	1,1,1-Trichloroethane	ND		0.20
	Carbon Tetrachloride	ND		0.20
	1,1-Dichloropropene	ND		0.20
	Benzene	ND		0.20
	1,2-Dichloroethane	ND		0.20
	Trichloroethene	130		10
	1,2-Dichloropropane	ND		0.20
	Dibromomethane	ND		0.20
	Bromodichloromethane	ND		0.20
	2-Chloroethyl Vinyl Ether (cis) 1,3-Dichloropropene	ND ND		1.0 0.20
	Methyl Isobutyl Ketone	ND		2.0
	Toluene	0.35		0.20
	(trans) 1,3-Dichloropropene	ND		0.20
	1,1,2-Trichloroethane	ND		0.20
	Tetrachloroethene	ND		0.20
	1,3-Dichloropropane	ND		0.20
	23 320 050			

Lab Traveler: 11-171 Project: 001.01287.001

## VOLATILES by EPA 8260B page 2 of 2

Lab ID: Client ID: 11-171-28 MW-1-W

Commercial	Results	Elano	PQL
Compound 2-Hexanone	ND	Flags	2.0
	ND ND	\$0	0.20
Dibromochloromethane	ND ND		0.20
1,2-Dibromoethane Chlorobenzene	ND ND		0.20
	ND ND		0.20
1,1,1,2-Tetrachloroethane	ND *		0.20
Ethylbenzene	ND ND		0.20
m,p-Xylene		- 6	0.40
o-Xylene	ND ND	740	0.20
Styrene Bromoform	ND ND		1.0
			0.20
Isopropylbenzene	ND ND	27	0.20
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND	9	0.20
n-Propylbenzene	ND	10	0.20
2-Chlorotoluene	ND		
4-Chlorotoluene	ND		0.20
1,3,5-Trimethylbenzene	ND		0.20
tert-Butylbenzene	ND		0.20
1,2,4-Trimethylbenzene	ND		0.20
sec-Butylbenzene	ND		0.20
1,3-Dichlorobenzene	ND	•	0.20
p-Isopropyltoluene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
n-Butylbenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
Naphthalene	ND		1.0
1,2,3-Trichlorobenzene	ND		0.20

	Percent	Control
Surrogate	Recovery	Limits
Dibromofluoromethane	111	71-133
Toluene, d8	110	80-151
4-Bromofluorobenzene	109	75-139

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

Page 1 of 2

Date Extracted: Date Analyzed:

11-28-01 11-28-01

Matrix: Units:

Water ug/L (ppb)

Lab ID:

11-171-29

Client ID: MW-2-W

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND	, , ,	0.20
Chloromethane	ND		0.20
Vinyl Chloride	ND		0.20
Bromomethane	ND		1.0
Chloroethane	ND	21	0.20
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Acetone	ND		5.0
Iodomethane	ND		1.0
Carbon Disulfide	ND		0.20
Methylene Chloride	ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
Methyl t-Butyl Ether	ND		0.20
1,1-Dichloroethane	ND		0.20
Vinyl Acetate	ND		1.0
2,2-Dichloropropane	ND .		0.20
(cis) 1,2-Dichloroethene	ND		0.20
2-Butanone	ND		5.0
Bromochloromethane	ND		0.20
Chloroform	0.20		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
Benzene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	33		0.20
1,2-Dichloropropane	0.71		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	ND		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
Methyl Isobutyl Ketone	ND		2.0
Toluene	ND		0.20
(trans) 1,3-Dichloropropene	ND		0.20
1,1,2-Trichloroethane	ND	75	0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

Page 2 of 2

Lab ID: 11-171-29
Client ID: MW-2-W

Compound	Results	Flags	PQL
2-Hexanone	ND	_	2.0
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachioroethane	ND		0.20
Ethylbenzene	ND		0.20
m,p-Xylene	ND		0.40
o-Xylene	ND		0.20
Styrene	ND	Ä.	0.20
Bromoform	ND	19	1.0
Isopropylbenzene	ND		0.20
Bromobenzene	ND		0.20
1,1,2,2-Tetrachloroethane	ND	15	0.20
1,2,3-Trichioropropane	ND		0.20
n-Propylbenzene	ND		0.20
2-Chlorotoluene	ND	0	0.20
4-Chlorotoluene	ND		0.20
1,3,5-Trimethylbenzene	ND		0.20
tert-Butylbenzene	ND		0.20
1,2,4-Trimethylbenzene	ND		0.20
sec-Butylbenzene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
p-Isopropyltoluene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND -		0.20
n-Butylbenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
Naphthalene	ND		1.0
1,2,3-Trichlorobenzene	, ND		0.20

	Percent	Control
Surrogate	Recovery	Limits
Dibromofluoromethane	109	71-133
Toluene, d8	108	80-151
4-Bromofluorobenzene	104	75-139

PQL

Flags

Date of Report: November 29, 2001 Samples Submitted: November 21, 2001

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

Page 1 of 2

Results

Date Extracted: Date Analyzed: 11-28-01 11-28-01

Matrix: Units: Water ug/L (ppb)

Lab ID:

11-171-30 MW-3-W

Client ID:			MW-3-W
5.	35	19	
Compound	į		
Dichlorodifle	uorom	ethane	

Dichlorodifluoromethane	ND		0.20
Chloromethane	ND.		0.20
Vinyl Chloride	· ND		0.20
Bromomethane	ND		1.0
Chloroethane	ND		0.20
Trichlorofluoromethane	ND	85	0.20
1,1-Dichloroethene	ND		0.20
Acetone	· ND		5.0
Iodomethane	ND		1.0
Carbon Disulfide	ND		0.20
Methylene Chloride	, ND		1.0
(trans) 1,2-Dichloroethene	ND		0.20
Methyl t-Butyl Ether	ND		0.20
1,1-Dichloroethane	ND		0.20
Vinyl Acetate	ND		1.0
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	2.1		0.20
2-Butanone	ND		5.0
Bromochloromethane	ND		0.20
Chloroform	8.2		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND	127	0.20
Benzene	ND		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	62		2.0
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	0.77		0.20
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		0.20
Methyl Isobutyl Ketone	ND		2.0
Toluene	1.1		0.20
(trans) 1,3-Dichloropropene	ND		0.20
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

Page 2 of 2

Lab ID: 11-171-30 Client ID: MW-3-W

Compound	Results	Flags	PQL
2-Hexanone	ND	rago	2.0
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND	* *	0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND		0.20
Ethylbenzene	0.31		0.20
m,p-Xylene	1.6		0.40
o-Xylene	0.55		0.20
Styrene	ND	880	0.20
Bromoform	ND		1.0
Isopropylbenzene	ND	20	0.20
Bromobenzene	ND	18	0.20
1,1,2,2-Tetrachloroethane	ND		0.20
1,2,3-Trichloropropane	ND		0.20
n-Propylbenzene	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3,5-Trimethylbenzene	ND		0.20
tert-Butylbenzene	ND		0.20
1,2,4-Trimethylbenzene	· ND		0.20
sec-Butylbenzene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
p-Isopropyltoluene	ND		0.20
1,4-Dichlorobenzene	ND		0,20
1,2-Dichlorobenzene	ND		0.20
n-Butylbenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND		1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
Naphthalene	ND		1.0
1,2,3-Trichlorobenzene	ND	B•	0.20

	Percent	Control
Surrogate	Recovery	Limits
Dibromofluoromethane	111	71-133
Toluene, d8	110	80-151
4-Bromofluorobenzene	108	75-139

Lab Traveler: 11-171 Project: 001.01287.001

#### **VOLATILES by EPA 8260B**

Page 1 of 2

Date Extracted: 11-28-01 Date Analyzed: 11-28-01

Matrix: Water Units: ug/L (ppb)

Lab ID: 11-171-31 Client ID: MW-4-W

Compound Dichlorodifluoromethane	Results ND	Flags	PQL 0.20
Chloromethane	ND		0.20
Vinyl Chloride	ND	59	0.20
Bromomethane	ND		1.0
Chloroethane	ND		0.20
Trichlorofluoromethane	ND		0.20
1,1-Dichloroethene	ND		0.20
Acetone	ND		5.0
lodomethane	ND	90	1.0
Carbon Disulfide	ND		0.20
Methylene Chloride	ND	46	1.0
(trans) 1,2-Dichloroethene	ND		0.20
Methyl t-Butyl Ether	ND		0.20
1,1-Dichloroethane	ND		0.20
Vinyl Acetate	ND		1.0
2,2-Dichloropropane	ND		0.20
(cis) 1,2-Dichloroethene	ND		0.20
2-Butanone	ND		5.0
Bromochloromethane	ND		0.20
Chloroform	9.2		0.20
1,1,1-Trichloroethane	ND		0.20
Carbon Tetrachloride	ND		0.20
1,1-Dichloropropene	ND		0.20
Benzene	0.35		0.20
1,2-Dichloroethane	ND		0.20
Trichloroethene	. 11		0.20
1,2-Dichloropropane	ND		0.20
Dibromomethane	ND		0.20
Bromodichloromethane	0.95		0.20
2-Chloroethyl Vinyl Ether	ND	80	1.0
(cis) 1,3-Dichloropropene	ND		0.20
Methyl Isobutyl Ketone	ND		2.0
Toluene	2.0		0.20
(trans) 1,3-Dichloropropene	ND		0.20
1,1,2-Trichloroethane	ND		0.20
Tetrachloroethene	ND		0.20
1,3-Dichloropropane	ND		0.20

Lab Traveler: 11-171 Project: 001.01287.001

#### VOLATILES by EPA 8260B Page 2 of 2

Lab ID: 11-171-31 Client ID: MW-4-W

Compound 2-Hexanone	Results ND	Flags	<b>PQL</b> 2.0
Dibromochloromethane	ND		0.20
1,2-Dibromoethane	ND		0.20
Chlorobenzene	ND		0.20
1,1,1,2-Tetrachloroethane	ND -	4 2	0.20
Ethylbenzene	0.52		0.20
m,p-Xylene	2.4		0.40
o-Xylene	0.98	89	0.20
Styrene	ND	(40)	0.20
Bromoform	ND		1.0
Isopropylbenzene	ND		0.20
Bromobenzene	ND	26	0.20
1,1,2,2-Tetrachloroethane	ND	6	0.20
1,2,3-Trichloropropane	ND		0.20
n-Propylbenzene	ND		0.20
2-Chlorotoluene	ND		0.20
4-Chlorotoluene	ND		0.20
1,3,5-Trimethylbenzene	ND		0.20
tert-Butylbenzene	ND		0.20
1,2,4-Trimethylbenzene	ND		0.20
sec-Butylbenzene	ND		0.20
1,3-Dichlorobenzene	ND		0.20
p-Isopropyltoluene	ND		0.20
1,4-Dichlorobenzene	ND		0.20
1,2-Dichlorobenzene	ND		0.20
n-Butylbenzene	ND		0.20
1,2-Dibromo-3-chloropropane	ND	,	1.0
1,2,4-Trichlorobenzene	ND		0.20
Hexachlorobutadiene	ND		0.20
Naphthalene	ND		1.0
1,2,3-Trichlorobenzene	ND		0.20

	Percent	Control
Surrogate	Recovery	Limits
Dibromofluoromethane	111	71-133
Toluene, d8	109	80-151
4-Bromofluorobenzene	105	75-139

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	<b>Environmental</b>	inc.

## **Chain of Custody**

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Page		_of _	

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#### Environmental

Services Network

October 23, 2002

Paul Stemen Stemen Environmental PO Box 3644 Lacey, WA 98509

Dear Mr. Stemen:

Please find enclosed the analytical data report for the Bruce Titus Nissan Project site in Tacoma, Washington. Water samples were analyzed for VOC's by Method 8260 on October 16, 2002.

The results of these analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. An invoice for this analytical work is also enclosed.

ESN Northwest appreciates the opportunity to have provided analytical services to Stemen Environmental for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Sherry L. Chilcutt Vice President

ESN Job Number:

S21015-1

Client:

STEMEN ENVIRONMENTAL

Client Job Name: Client Job Number: BRUCE TITUS

BRUCE TITUS

3260, µg/L		MTH BLK	LCS	MW-1	MW-2	MW-3	MW-
Matrix	Water	Water	Water	Water	Water	Water	Wat
Date extracted	Reporting	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02	10/16/0
Date analyzed	Limits	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02	10/16/0
Dichlorodifiuoromethane	1.0	_ā		nd	**************************************	nd	
		nd			nd 		r
Chloromethane	1.0	nd		nd	nd	nd	
/inyl chloride	0.2	nd		nd	nd	nd	1
Bromomethane	1.0	nd		nd	nd	nd	
Chloroethane	1.0	nd		nd	nd	nd	3
richlorofluoromethane	1.0	nd		nd	nd	nd	
,1-Dichloroethene	1.0	nd		nd	nd	nd	
Methylene chloride	1.0	nd		nd	nd	nd	
rans-1,2-Dichloroethene	1.0	nd		nd	nd	nd	
1,1-Dichloroethane	1.0	nd		nd	nd	nd	
sls-1,2-Dichloroethene	1.0	nd		nd	nd	nd	
2,2-Dichloropropane	1.0	nd		nd	nd	nd	
Chloroform	1.0	nd		nd	nd	nd	- 12
Bromochloromethane	1.0	nd		nd	nd	nd	
i,1,1-Trichloroethane	1.0	nd		nd	nd	nd	
	1.0	nd		nd	nd	nd	
1,2-Dichloroethane							
1.1-Dichloropropene	1.0	nd		nd	nd	nd	
Carbon tetrachloride	1.0	nd		nd	nd	nd	
Benzene	1.0	nd	78%	nd	nd	nd	
Trichloroethene	1.0	nd	77%	92	38	99	300
1,2-Dichloropropane	1.0	nd		nd	nd	nd	
Dibromomethane	1.0	nd		nd	nd	nd	
Bromodichloromethane	1.0	nď		nd	nd	nd	
sis-1,3-Dichloropropene	1.0	nd		nd	nd	nd	
Toluene	1.0	nd	78%	nd	nd	nd	
	1.0	nd	1070	nd .	nd	nd	
Irans-1,3-Dichloropropene							
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd	
1,3-Dichloropropane	1.0	nd		nd	nd	nd	
Dibromochloromethane	1.0	nd		nd	- nd	nd	
Tetrachloroethene	1.0	nd		nd	nd	nd	
1,2-Dibromoethane (EDB)(*)	0.01	nd		nd	nd	nd	
Chlorobenzene	1.0	nd	78%	nd	nd	nd	
1,1,1,2-Tetrachioroethane	1,0	nd		nd	nd	nd	
Ethylbenzene	1.0	nd		nd	nd	nd	
Xylenes	1.0	nd	107	nd	nd	nd	
	1.0	nd		nd	nd	nd	
Styrene							
Bromoform	1.0	nd		nd	nd	nd	
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd	
Isopropylbenzene	1.0	nd		nd	nd	nd	
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd	
Bromobenzene	1.0	nd		nď	nd	nd	
n-Propylbenzene	1.0	nd		' nd	nd	nd	
2-Chlorotoluene	1.0	bn		nd	nd	nd	
4-Chlorotoluene	1.0	nd		nd	nd	nd	
1,3,5-Trimethylbenzene	1,0	nd		nd	nd	nd	
tert-Butylbenzene	1.0	nd		nd	nd	nd	
1,2,4-Trimethylbenzene	1,0	nd		nd	nd	nd	
sec-Butylbenzene	1.0	nd		nd	nd	nd	
\$7.500				nd	nd	nd	
1,3-Dichlorobenzene	1.0	nd					
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd nd	
Isopropyltoluene	1.0	nd		nd	nd	nd	
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	
n-Bulylbenzene	1.0	hd		nd	nd	nd	
1,2-Dibromo-3-Chloropropane	1,0	nd		nd	nd	nd	
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	
Naphthalene	1,0	nd		nd	nd	nd	
Hexachloro-1,3-butadlene	1.0	nd		nd	nd	nd	
1,2,3-Trichlorobenzene	1,0	nd		nd	nd	nd	

ESN Job Number:

\$21015-1

Client:

STEMEN ENVIRONMENTAL

Client Job Name:

BRUCE TITUS BRUCE TITUS

Client Job Number:

Analytical Results

8260, µg/L		MTH BLK	LCS	MW-1	MW-2	MW-3	MW-4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02
Date analyzed	Limits	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02	10/16/02
Surrogate recoveries		204-757 PMSY 78-30					
Dibromofluoromethane		102%	100%	101%	101%	100%	101%
Toluene-d8		100%	100%	99%	100%	99%	100%
4-Bromofluorobenzene		99%	99%	99%	100%	99%	103%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

ESN Job Number: Client: Client Job Name:

S21015-1

STEMEN ENVIRONMENTAL BRUCE TITUS

Client Job Number:

BRUCE TITUS

Analytical Results 3260, µg/L		MS MW-4	MSD MW-4	MW-4
Matrix	Water	Water	Water	Wate
Date extracted	Reporting	10/16/02	10/16/02	10/16/02
Date analyzed	Limits	10/16/02	10/16/02	10/16/0:
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride	0.2			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0			
Methylene chloride	1,0			
rans-1,2-Dichloroethene	1.0		-	
1,1-Dichloroethane	1.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0	10		
1,2-Dichloroethane	1.0	5/8		
1,1-Dichloropropene	1.0			
Carbon tetrachloride	1.0			
Benzene	1.0	80%	80%	19
Trichloroethene	1.0	80%	80%	19
1,2-Dichloropropane	1.0			
Dibromomethane	1.0			
Bromodichloromethane	1.0			
cis-1,3-Dichloropropene	1.0			
Toluene	1.0	80%	79%	19
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
1,3-Dichloropropane	1.0			
Dibromochloromethane	1.0			
Tetrachloroethene	1.0			
1,2-Dibromoethane (EDB)(*)	0.01			
Chlorobenzene	1.0	80%	79%	1
1,1,1,2-Tetrachloroethane	1.0			
Ethylbenzene	1.0			
Xylenes	1.0			
Styrene	1.0		·	
Bromoform	1.0			
1,1,2,2-Tetrachloroethane	1.0			
Isopropylbenzene	1.0 1.0			
1,2,3-Trichloropropane Bromobenzene	1,0			
	1.0			
n-Propylbenzene	1.0			
2-Chlorotoluene 4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0		54	
tert-Butylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
sec-Butylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
Isopropylloluene	1.0			
1,2-Dichlorobenzene	1.0			
n-Bulylbenzene	1.0			
1,2-Dibromo-3-Chloropropane	1.0			
1,2,4-Trichlorobenzene	1,0			
Naphthalene	1.0			
Hexachloro-1,3-butadiene	1,0			
1,2,3-Trichiorobenzene	1.0			

ESN Job Number:

S21015-1

Client:

STEMEN ENVIRONMENTAL

Client Job Name:

BRUCE TITUS BRUCE TITUS

Client Job Number:

Analytical Results		MS	MSD	RPD
8260, µg/L		MW-4	MW-4	MW-4
Matrix	Waler	Water	Water	Water
Date extracted	Reporting	10/16/02	10/16/02	10/16/02
Date analyzed	Limits	10/16/02	10/16/02	10/16/02
Surrogate recoveries			22	
Dibromofiuoromethane		99%	101%	<del>, , , , , , , , , , , , , , , , , , , </del>
Toluene-d8		98%	99%	
4-Bromofluorobènzene		99%	99%	

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

ESN Environmental
NORTHWEST Services Network

52/015-1

### CHAIN-OF-CUSTODY RECORD

CLIENT: STE	ne	15 6	ENV	leinn	Er-M2		Ir	<u> </u>			D	ATE:	10	11	1/6	سستع و	, i	1.9	PA	GE	_OF _	/		_
ADDRESS:				,				, , , , , , , , , , , , , , , , , , ,			P	ROJI	ECT	NAI	ME:	B	Ri	ice	77	GE / PIHUS PUS LINS	Smil	5172	2	
PHONE: 3604	38-	5521		FA	X:			4.		<del></del> -	L	OCA	TION	l:	7	TO CO	21071	A A	10	bot.				
PHONE: 3604 CLIENT PROJECT	#:	N 153	CAST	PROJE	CT MAN	AGE	R: PAIS	1252	Tu	له	c	OLLE	ECTO	OR:,	fo	FN.	4	76	in		DATE OF COLLECTS	on 14	2/1	2
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1. MW-1			1/20	VIME																		3		
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3. MW-3		6 2 5 9 40 50 525	4	ø	T-IX									3202			T					3		
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	SA.	MPLE L	DISPOSA	L INSTRUCT	IONS			è	]	RECE	VED (	GOOD	COND	)./CO	LD	<del>-</del>	1	ı		e	4			1

## Attachment E Historical STF Site TCE Summary Tables

#### **TABLE GW-C2**

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL NMW-2A (1758)

42					Conce	ntratio	n (µg	/L) <sup>(a,b)</sup>						
Analyte		1st Quarte (April 1991		(Ji	2nd Quarter uly/August 19		(0	3rd Quarte Oct/Nov 199		4th Quarter (January 1992)				
Inorganics														
Aluminum		947			423		В	121	UJ		453			
Arsenic		50.9			39.1		В	8.3			45.6			
Barium	В	30.6		В	53.8		В	50.9		В	26.4			
Boron	ı	Not Analyze	ed		1,230			1,210			1,340			
Calcium		6,760			9,240			58,100	Emistro III	100,000,000,000	9,530			
Total Chromium	В	9.9		В	5	UJ	U	4			12	IJ		
Cobalt	U	6.7		В	15.5		В	20.8		U	3			
Copper	В	13	UJ	В	5	J4	В	1	UJ	В	8.9			
Cyanide	1	Not Analyze	ed	U	20		U	10		93-11 - 71 	11.2			
Iron		2,730			10,900			16,900			3,660			
Lead		5.6	UJ	В	2.6	UJ	U	1	7	В	1.5	J4		
Magnesium		21,600			19,000			22,400			43,500			
Manganese		131	J4		358			884			123			
Nickel	В	19.3		В	30.1	UJ		51.7		U	8	IJ		
Potassium	В	2,720	J4	В	3,750		В	4,430		В	4,220			
Sodium		87,500	J4		100,000			101,000			84,600			
Vanadium	В	18.3		В	29.7		В	16.3	UJ	В	24.1			
PAHs											******			
Anthracene	U	0.05		В	0.053	UJ		0.054		U	0.05			
VOCs	-										Carrier Charles			
1,2-Dichloroethene (total)	U	10		U	13		J	5		J	7			
Trichloroethene	U	10		J	1		U	10		J	2			

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL NMW-2A (1758)

Analyte Semivolatiles Diethylphthalate	Concentration (µg/L) <sup>(a,b)</sup>											
	1st Quarter (April 1991)	\$ 57500 FOR	2nd Quarter //August 1991)	3rd Quarter (Oct/Nov 1991)	4th Quarter (January 1992)							
	Not Analyzed	U	10	Not Analyzed	J	2						
bis(2-Ethylhexyl) phthalate	Not Analyzed	U	10	Not Analyzed	J	0.7	J4					

<sup>(</sup>a) Letters preceding the concentration value are laboratory qualifiers. Letters following the concentration value are data validation qualifiers.

<sup>(</sup>b) Concentrations for all four quarters are listed if analyte was detected during one or more quarters. A "U" qualifier indicates the analyte was not detected at the concentration indicated.

**TABLE GW-C13** 

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL CBS-3A (1763)

	Concentration (µg/L) <sup>(a,b)</sup>												
Analyte	1st Quarter (April 1991)			(Ji	2nd Quarter uly/August 19	(0	3rd Quarte Oct/Nov 199	7/2	4th Quarter (January 1992)				
Inorganics								······································					
Barium	В	10.6		В	3	J4	В	3.3	UJ	В	4.7	UJ	
Beryllium	U	1.1		U	1		U	.1		В	1		
Boron		Not Analyze	ed		390			75.2		В	98.2		
Calcium		14,300			13,400			13,500			12,800		
Total Chromium	В	3.7		U	5	7.0	υ	4		U	7		
Lead	U	0.7	IJ	В	1.9		В	1.3	UJ	В	1.7	J4	
Magnesium		6,500	J4		6,760			6,640			6,330		
Manganese	В	3.4	UJ	U	11	υJ	В	7.9		В	2		
Potassium	В	2,240		В	2,320		В	1,480		В	1,620		
Sodium		124,000	J4		10,500			11,000	UJ		5,670		
Vanadium	U	3.3		U	6		В	4.2		U	4		
VOCs													
Chloromethane	U	10		J	3		U	10	UJ	U	10		
Trichloroethene	J	3	- 0.10 %	J	2		J	6	J3	J	5		

<sup>(</sup>a) Letter preceding the concentration value are laboratory qualifiers. Letters following the concentration value are data validation qualifiers.

<sup>(</sup>b) Concentrations for all four quarters are listed if analyte was detected during one or more quarters. A "U" qualifier indicates the analyte was not detected at the concentration.

#### **TABLE GW-C14**

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL CBS-4A (1764)

Analyte		Concentration (µg/L) <sup>(a,b)</sup>											
		1st Quarter (April 1991)			2nd Quarter (July/August 1991)			3rd Quarter (Oct/Nov 1991)			4th Quarter (January 1992)		
Arsenic	В	4.3	UJ	U	2		В	1.1		В	3		
Barium	U	7.8		В	6.7	J4	В	3.1	UJ	В	5.7	UJ	
Boron	1	lot Analyz	ed		242			768			786		
Calcium		19,000			20,700			6,780			7,700		
Cyanide	1	lot Analyz	ed	U	10	81		11.4			11.9		
Lead	U	0.7		В	1.8		U	1		В	1.2	J4	
Magnesium		11,800			13,400		В	4,440			5,130		
Potassium	В	1,830	IJ	В	2,480		В	2,080	IJ	В	1,870		
Silver	U	6.7	•	В	5		U	3		U	6		
Sodium		10,200	J4		10,200			38,000			32,900		
Vanadium	U	3.3	4	U	6		В	10.3	υJ	В	5.6		
PAHs						20							
Anthracene	U	0.05		U	0.05			0.053		U	0.05		
VOCs									į.				
Trichloroethene	U	10		U	10		J	2		U	10		

<sup>(</sup>a) Letter preceding the concentration value are laboratory qualifiers. Letters following the concentration value are data validation qualifiers.

<sup>(</sup>b) Concentrations for all four quarters are listed if analyte was detected during one or more quarters. A "U" qualifier indicates the analyte was not detected at the concentration.

#### **TABLE GW-C17**

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL CBS-8A (1768)

Analyte		Concentration (µg/L) <sup>(a,b)</sup>											
	1st Quarter (April 1991)			2nd Quarter (July/August 1991)				3rd Quarte ct/Nov 19		4th Quarter (January 1992)			
Inorganics		19											
Aluminum		307		В	124	UJ	В	110	UJ	В	120	UJ	
Antimony	U	43.3		U	20		В	50.7		В	13.3		
Arsenic	В	6.4	UJ	В	2.3		U	1		В	1.6		
Barium		302			388			423			500	16100 ->	
Boron	No	ot Analyz	ed		1,880			1,680			1,940		
Calcium		63,700			74,100			80,300			87,200		
Total Chromium	В	7.1		U	5		U	4		U	7		
Iron		14,300			17,000			20,600			22,200		
Lead		58.9			25.2			13.4	J4		16.5	J4	
Magnesium		59,400			76,500			81,800			93,800		
Manganese	-	492	J4		574			652			714		
Potassium	В	5,140	J4		6,860			6,570			6,940		
Sodium		92,300	J4		95,300			91,000			98,400		
Vanadium	U	3.3		В	8.5		В	7.6	UJ	В	5.5		
Zinc		150			48.2			31.8			49.3		
PAHs													
Naphthalene		2.3			7.1			8.5			11		
Acenaphthylene		2.9	- 100	U	1		U	1		U	1		
Acenaphthene		2.6			4.7			4.7			5.8		
Fluorene		0.25			3.8			1.5			4.5		
Phenanthrene		0.22			0.52			0.68			1.1		
Anthracene		0.65			0.28	IJ		0.32			0.29		
Fluoranthene		0.21	307		0.47			0.49			0.73		
Pyrene	U	0.1			0.23			0.33			0.49		

## ANALYTES DETECTED IN GROUNDWATER SAMPLES COLLECTED FROM ONSITE WELL CBS-8A (1768)

Analyte	Concentration (µg/L) <sup>(a,b)</sup>											
	1st Quarter (April 1991)		nd Quarter August 1991)	1	ord Quarter ct/Nov 1991)	4th Quarter (January 1992						
			8									
Vinyl Chloride	U 1	J	2	U	10	U	10					
1,2-Dichloroethene (total)	J 6	U	13	U	10	U	10					
Trichloroethene	J 1	U	10	U	10	U	10					
2-Methylnaphthalene	Not Analyzed	U	10	J	0.7	J	1					
Semivolatiles			4									
Dibenzofuran	Not Analyzed	J	4	J	3	J	4					
Carbazole	Not Analyzed	J	3	J	4 .	J	2					
bis(2-Ethylhexyl)phthalate	Not Analyzed	U	10	U	10	J	1 J					

<sup>(</sup>a) Letter preceding the concentration value are laboratory qualifiers. Letters following the concentration value are data validation qualifiers.

<sup>(</sup>b) Concentrations for all four quarters are listed if analyte was detected during one or more quarters. A "U" qualifier indicates the analyte was not detected at the concentration.